

# Users' Motivation and Satisfaction with IS

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**Abstract**—To motivate users to adopt and use information systems effectively, the nature of *motivation* should be carefully investigated. People are usually motivated within *ongoing processes* which include a chain of states such as perception, stimulation, motivation, actions and reactions and finally, satisfaction. This study assumes that the relevant motivation processes should be executed in a proper and continuous manner to be able to persistently motivate and re-motivate people in organizational settings and towards information systems. On this basis, the study attempts to propose possible *relationships* between this process-nature view of motivation in terms of the common chain of states *and* the nearly unique properties of information systems as is perceived by users in the sense of a knowledgeable and authoritative entity. In the conclusion section, some guidelines for practitioners are suggested to ease their tasks for motivating people to adopt and use information systems.

**Keywords**—Information Systems, Satisfaction, Motivation

## I. INTRODUCTION

PEOPLE for doing their tasks need to be satisfied (even negatively, with escaping a threat). However, before satisfaction they should be stimulated. This can be considered as a process, which should normally begin with stimulation and motivation.

Information Systems (IS)' properties, as is pointed in [1] and a more complete discussion can be found in [2], have some specific distinctions in terms of their stored knowledge, offered perceptions and definition of the world (i.e. workplace and work logic) and, imposed values and controls, which all remind people roughly, an imaginary person and more specifically, their *superego* (mostly, due to those control and values) and *ego ideal* (partially in the form of someone omniscience who resembles the omnipotence of the parental role in ego ideal).

Therefore, this study as a short communication attempts to provide a discussion on the possible relationships between these (almost unique) properties of IS and the given formulation of stimulation, motivation and satisfaction with IS, and, mostly in an unconscious level [1, 3]. This discussion can be useful to hypothesize motivation, as a very critical issue [4], pp. 184-185, in organizations generally, and more specifically assist to ease those IS related activities that are

directly connected to people (e.g. requirement analysis, implementation and usage). This is in close connection with the literature which reports some unconscious dysfunction cases [4, 5, 6].

## II. ASSUMPTIONS AND EXPECTED OUTCOMES

To provide the argument, this study relies on the formulation as follows. Firstly, there is an emphasis on the continuous-process nature of motivation rather than a conditional view. Secondly, the other emphasis is on the necessary order of states within this process pattern, i.e. stimulation (can be interpreted as perceiving threat as well), motivation, actions (including manipulation of the one's mind contents without sensible outward manifestations) that finally leads to motivate and (in upcoming *cycles*) *re-motivate* people.

Thirdly, it is assumed that to motivate people effectively and permanently, conceiving such an ongoing process and its states is necessary or at least, strongly preferred. Moreover, it is noted that the people inside an organization are busy with their ongoing tasks, and then, it can hardly be imagined that they do not need ongoing motivations. In fact, not only due to such continual nature of their tasks, but also because of the nature of motivation in itself, it (i.e. motivation) should be considered in a continuous-process nature.

Fourthly, another assumption is people behavior through their (organizational) lifetime generally is a function of such processes.

Fifthly, on the basis of the stipulated assumption, it can be suggested as an extra assertion that, if IS processes comply with such process nature and the pattern of states, then it is more probable to more successfully motivate people to adopt and use IS. Nonetheless, a discussion on possible principles to design IS in compliance with such ongoing processes is provided somewhere else [7].

Hence, the main objective in this study is to generally *relate* these states and the whole assumed process of motivation to the IS properties, aiming to provide a basis to promote people's motivations to adopt and work with IS.

In literature, conditional-behavioral approaches [8, 9] roughly conceive "intention to use" and "motivation to use" interchangeably. However, here and from a psychodynamic view emphasizing on unconscious motives, a rational intention is out of scope and, motivation is partly conscious and partly (*perhaps*; and according to psychoanalysis literature [10], *mostly*) unconscious.

The study should provide some ways to hypothesize and study motivations towards IS and related problems e.g. resistance and acceptance issues [11, 12, 13]. As well, the study is expected to have some direct *and* indirect outcomes

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for practitioners to design and implement systems with a better success rate.

### III. FRAMEWORK

#### A. Background

To a user, performing tasks towards an information system has its own problems. IS usually require people to do things carefully and decisively. They perceive systems first of all lively and animatedly [1, 2], and then knowledgeable, authoritative and sometimes stringent [2]. So, they are very desirable candidate to project or introject their mind contents to it or from it into themselves. However, this matter, from the other side, means they possibly project their negative feelings to it as well (see physician cases in [2] and original case in [11, 12]).

Furthermore, IS may be appeared to be emotionless as well, so that people may not always easily interact with them through means of introjection, projection and identification (cf. a discussion in [2]). Common behavioral approaches to such problems (i.e. motivating people) have focused on conditional reaction mechanisms [8, 9]. While, as was mentioned earlier, in the frame of psychodynamic theory, the current study considers it in the form of an ongoing process. This is in contrast to other incentive views e.g. extra payments or higher position to motivate people.

Therefore, by considering motivation in the form of cyclical processes, this study instead of considering a (set of) causal relationship(s) between incentives and reactions; also contemplates the role of time e.g. how the effectiveness of incentive can vary over time and, particularly in *subsequent* cycles. Another point that should be taken into account is the *history* of people in terms of individual backgrounds, group values and organizational culture (see [14]). In this respect, it can be easily argued that not only the same incentives influence different individuals distinctively, but also it is very reasonable to state that different groups and organizational cultures response differently to those incentives (for a comprehensive discussion see [4]).

#### B. Analysis

Based on the aforementioned premises, people, according to their basic needs, are periodically stimulated and then motivated to do their jobs. In this regard, *incentives* mostly play only a higher role in their conscious and rational lives. Whereas, their normal pace of work is a composition of common and perhaps repetitive *cycles*; including stimulation, motivation, action and satisfaction. At this point, only those cycles or (work) *habits* which are directly or indirectly related to the people's organizational task or their work efficiency and performance, are under consideration. As was pointed previously, stimulation can be in a negative form, that is, a perceived threat e.g. fear of organizational authority.

From the other side, though these stimulations may be appeared to be habitual and trivial, yet because they are mostly and in various levels connected to significant

unconscious mind processes e.g. ego defenses, then they may be very powerful and very sensitive for modification. In other words, they (or their majority) must be done perpetually till people can feel they are in balance [3, 15]. They (i.e. habitual stimulations) are connected to, only because they are *customary habits* i.e. outward manifestations of mind processes and particularly, ego defenses [15].

Nevertheless, this discussion does *not* necessarily imply that these habits all are unchangeable, powerful or required to be studied thoroughly for any system design and implementation. Indeed, two major consequences are, firstly they are *potentially* very powerful as is reported in case studies [11, 13, 16]. Secondly, contemplating the process nature of motivation (i.e. continuous and in consecutive cycles) most likely provides a better means of formulation comparing to conditional/behavioral approaches.

#### C. Proposed Relationships

In this subsection, a few assertions about the possible relationships between IS and motivation processes are proposed. To delimit the discussion, the study only intend to find similarities between two sides (i.e. IS and motivation) within organizational settings and through psychoanalytic interpretation methods.

Therefore, and according to the method, we approach to those system's enforced standards and values that require people works regularly. For instance, it is expected that people be accustomed to periodic actions e.g. a daily report. The amount of work should be shown well from superior view and with less probability of complain.

### IV. DISCUSSION

As is mentioned, people are motivated according to regular cycles. Here the main focus is on the processes nature and from a habitual view and, regarding the IS properties, it is expected that people can accustomed to knowledge that they can obtain from system.

However, here our objective is to provide a wide and general view which can be credible regarding the fact that any specialization without a firm basis (e.g. through conducting experiments) can reduce it.

Moreover, generally we should be careful about doing surveys or other types of inquiry in which causal relationship are investigated in terms of connecting and correlating behavioral manifestation. Actually for this type of conceptualization, general ambivalence values may exist [2, 4, 17]. It inherently means a certain factor can lead to two opposite reactions for each pair of persons, or for one person in two different periods of time.

Other than the ambivalence nature, there is one more issue which is somehow related to the first one. And that is equilibrating nature of any discussed concept, herein. This signifies that, for example, if people usually would like to choose work procedures (e.g. according to system *options*) with minimum possibility of complain (e.g. from customers or their superior) does not means this is the exact case to

motivate those. Actually, and in this exemplar case, perhaps destructively, people prefer to choose such complains, or better to put into words, choosing the ways they are more potential to collide with others, because they need to release some tensions; because they internally and mentally need to be punished (e.g. self guilt feeling from early childhood); because they anxious to be punished; or, only because they need ways to express themselves in terms of compromising or fighting with others. Even more complicatedly, the case might be a combination of all!

As it can be seen, all these interpretation can be true. And the main point here is, how we can use such conflicting interpretations, especially when there is a need to specialize the issue in an organizational settings and, at the same time do not want to produce a personal history for all individuals (because, simply, it is not economical!). Moreover, even if it (i.e. making history for all individuals) was possible, still understanding the meanings of relationship in the context (i.e. psychoanalytical view) would be very difficult. It is due to the existence of erroneous number of possible relationships between individuals, groups, individuals and groups, individual and the whole organization and so on.

This question, i.e. the usability and applicability of such interpretation, end up with three results. Firstly how we can generalize the problem in the level that, such diversity cannot harm the argument in that the argument still remains credible and effective. Secondly, how should consider this matter of ambivalence in a philosophical level to find an acceptable solution. And finally, how can we propose a dynamism to analyze such problems *in spite of* their ambivalence nature.

According to the scope of this study to provide a partial conceptualization in that the aforementioned questions can be better introduced and analyzed, the study approached to two simple concepts to render the expected outcomes. Firstly, the main focus is on the process natures of motivation and satisfaction. Secondly, it is intended to roughly relate users motivation and satisfaction to the IS properties.

It requires this presumption that, people can be accustomed to the system; so that such accustomed behaviors are able to be perceived both positively (e.g. in terms of better performance) *or* negatively, according to the case. This presumption implies that, accustoming to the system is possible (in a variable degree, of course) and desirable, but not necessarily leads to a better situation (e.g. better performance).

So firstly, the ways by that people can be better accustomed to the system should be investigated, regardless of their positive or negative attitude. Then, in a more precise view, those ways are intended by which people are capable to obtain a balance state (or significantly, a set of sates). Thirdly, we can look for a subset of those ways that potentially lead to a better performance. Fifthly, among those, positive attitudes towards the system can be more acceptable.

And finally we can consider and merge rational approaches (e.g. [18]) with these considerations to attain a better performance and more productivity.

## V. CONCLUSION AND FURTHER STUDIES

This paper attempts to conceptualize a few hypotheses about the nature of motivation inside organizations and particularly, contemplating it towards IS. The main hypothesis is motivation is an ongoing process, and then it should be studied and analyzed in the same manner. As a result, this hypothesis implies that to re-motivate people, they need to complete their cycles (of motivations). How much the previous cycle of motivation should be successful to lead to and be prepared for the new cycle is out of the scope of this study. But the point is, to continue the motivation and for the sake of re-motivating people, we (as analysts) should take into account the process nature and the related states. It means the new (or old) incentives whether virtually built-in the system (e.g. attractiveness of the user interface) or real rewards, can propose to people after (partial) satisfaction of the old ones and elapsing a (variable) course of time. In other words, it is not convenient for people to motivate perpetually with the same incentive without satisfactions and without elapsing time. Therefore, this can be an articulation of the problem in which it provides a better opportunity to define and grant incentives to motivate people.

Furthermore, this conceptualization, help system designers and implementers to form efficient habit of working with IS in the way that, the process of motivation and satisfaction with systems, be coordinated with the system processes. Then through some system options, the system obtain user habits in terms of time and activities and help to better motivate it.

On the basis of the aforementioned conceptualizations and hypotheses, further studies can be conducted to investigate them.

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