Are Enterprise System Related Misfits Always a Bad Thing?

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Abstract
Fits and misfits between information systems and their organizational contexts are important to many theoretical streams in the information systems research tradition. A premise underlying this fit-related research is that a fit is generally a good thing and should therefore be pursued, whereas misfits are bad and should be eliminated. In this conceptual essay we draw upon work on enterprise information systems to question whether this premise is necessarily always the case. In doing so we make two broad contributions: first, we conceptualize the different points where we might find fits or misfits between an enterprise system and its organizational context; second, we theorize about situations where misfits may not negatively influence organizational performance. We conclude with a provocation about the simultaneous desirability and danger of fit.

1. Introduction

The notion of fitness is a central concept in information systems research. An information system can have a better or worse fit, or alignment, with an organization’s strategy [1], socio-technical structure [2], or group or individual level tasks [3], [4]. The fundamental premise across this rich tradition is that the fit of an information system with the organizational environment is necessarily desirable. Goodhue [5] summarizes this assumption when he states: “a technology can only have positive performance impacts if it ‘fits’ the task that is being supported.” In this essay we wish to question this assumption. Is misfit between an information system and an organizational context always a bad thing?

In particular, take the case of enterprise systems such as enterprise resource planning (ERP) which represent the single biggest IT-related expenditure for contemporary organizations [6]. Enterprise systems inevitably involve misfits with the organization at the time of introduction [7], and, although some can be brought into alignment, many of these misfits cascade across the different stages of ERP implementation and use [8]. By misfit, we refer to a mismatch between the elements of the enterprise system and elements of the organization utilizing the system: ranging from minor inconveniences to critical deficiencies in functionality [9]. The literature is abundant with descriptions of misfits between enterprise systems and organizational contexts of many different types [9], [10], at different places in an organization [11], at different points in time [8], [12], and at various levels of analysis [6]. Some have reported persistent misfits even in the context of quite successful enterprise system implementations [13], [14]. One might argue that misfits are inevitable in enterprise system contexts, especially since in some sense enterprise system implementations never really end [12].

Given the ubiquity of enterprise system misfits in organizations, we challenge the longstanding assumption that all misfits carry negative consequences. Particularly in changing, innovative contexts, is the presence of a misfit always something that should be resolved through efforts to better align the enterprise system with practices? To address this question, we delve into the literature on enterprise systems and the literature on organizational innovation to provide arguments for situations where misfits are not necessarily negative and perhaps need not be resolved.

The remainder of the paper is organized as follows. We first review the literature on fit and enterprise systems

2. Literature review – fit and enterprise systems

Organizational theorists have held a longstanding belief that when components of an organization fit well, the organization will function effectively [15]. As such, the notion of fit is generally assumed to be a central component in organizational theorizing [16]. Because fit has been applied to
numerous contexts including, but not limited to cognitive problem solving [17], [18], strategy [1], and IS use and performance [3], [5], there are a multitude of definitions of what “fit” actual is. While the extant literature outlines many conceptualizations of fit, including Venkatraman’s [16] seminal work outlining six different perspectives of fit, there is one common theme: fit entails a one to one matching or alignment of two or more distinct components.

Because fit can be applied across a multitude of situations, it offers a rich stream of research possibilities and countless technologies that can be empirically investigated. Empirical evidence for the positive influences of fit on task performance has been found across a wide variety of technologies used at all levels of an organization [3]. Further evidence of the positive effect of fit has been recorded in a variety of settings such as requirements modeling [17], bookkeeping tasks utilizing both spatial and symbolic data representations [18], communication requirements [19], and virtual team performance [20].

The study and measurement of fit has been conducted in both variance and process model approaches. From a variance model perspective, fit is generally assumed to be a result of specific characteristics matching across two components. One widely used list of dimensions of fit is Goodhue’s [21] model of 12 task-technology fit constructs.

From a process model perspective, research has described how initial alignments can be resolved in a gradual process over time where the system and the organizational context are “mutually adapted” to result in eventual fit [22], [23]. This fit can also happen in less gradual, punctuated spurts of alignment [2], [24]. Other research has shown that attempts to align two components at one point in time lead to misfit at another point [25]. This latter point begins to frame our argument that casts doubt on the notion that misfits should always be dealt with because solutions may bring about adverse consequences. In this vein, it is entirely possible that resolving a misfit can bring about more problems in an organization than simply leaving it be.

The foundations of fit discussed in the preceding paragraphs are central to the more recent focus on enterprise systems. Because most enterprise systems represent configurable, generic packages, they never fit perfectly with any particular organization at first and must be configured and customized to attain this fit [26]. There are, however, instances of enterprise systems that are tailor-made for an organization, but we limit our discussion to commercial off-the-shelf packages. Since such systems span an entire organization, there will inevitably be some areas that fit more or less with the enterprise system [27]. The ubiquity of misfits present during enterprise implementations brings about a second question worthy of consideration. Given the multitude of success stories associated with implementing enterprise systems and the assumption that misfits are always present, perhaps many misfits are less damaging than research may lead us to believe.

Two primary typologies of ES-organization misfit have emerged in the literature. Sia and Soh [28] integrate ontological structures (deep versus surface) and the source of the structure (imposed versus voluntary) to present a typology of ES misalignments. Taking an alternate approach, Strong & Volkoff [9] used a grounded theory approach to propose a misfit typology that emerged from findings at an industrial equipment manufacturer. This study resulted in the identification of six categories of misfits (functionality, data, usability, role, control, and organizational culture) and two dimensions within each category (deficiencies and impositions). The former dimension denotes problems that arise when features are needed in the ES but are missing. The latter dimension denotes problems that arise because the inherent characteristics of the ES create an unwanted burden or nuisance to system users [9].

While some studies focus on the types of misfits that can emerge when implementing an enterprise system, other work has focused primarily on the causes of misfits. Such causes can originate from within the enterprise system being implemented or from within the organization. Two sources of organizational misfit are imposed structures necessary for survival in the industry and voluntary structures adopted by the organization to achieve competitive advantage [28]. Other researchers have pointed to opposing forces, such as integration vs. differentiation, process orientation vs. functional orientation, flexibility vs. restrictiveness, and package domain specifics vs. organization domain specifics, as primary causes of misfit [10]. In sum, the causes of ES-organization misfit are essentially applications of the seminal task-technology fit characteristics identified by Goodhue [21] and others.

If we accept the assumption that misfits will always arise in the implementation of enterprise systems and that such misfits are caused by opposing forces between the standardized software package and the organization, what impact does this have on the organization? To date, researchers have predominantly cast misfits in a negative light, primarily because they are costly [9]. Misfits can be resolved through software customizations, workarounds, or accepting the shortcomings of the system [29], all of which require a great deal of time
and resources. While it may be true that misfits result in increased cost and loss of productivity, we must also consider the primary source of information in this line of research: users of the system. In interviews, users may air their grievances associated with using the system to perform their individual job functions without regard to how their job duties integrate with others across the organization. These sources of information might focus on a more limited scope, and thus emphasize the importance of the local context while de-emphasize the “big picture.” Leading to a negative bias toward enterprise system-related misfits. The evidence supporting the negative effects of ES-organization misfits is rather extensive, ranging from lack of integration, limited visibility, loss of control, decreased productivity, and increased costs. However, based on the above discussion, we have indicated several areas of exploration that may change the way we view ES-organization misfits. Figure 1 is a high-level graphical depiction of the context for our arguments in the remaining sections of the paper.

![Figure 1: Misfits across levels and time](image)

There are two primary factors that we use as our basis for questioning whether misfits are always necessarily bad for an organization: level of analysis and time. As our diagram shows, misfits can emerge at the level of the individual (or local unit), organizational routine, or organizational structure and can be present across multiple time periods. A given system may involve important fit and important misfits across the whole scope of Figure 1. Investigating misfits in isolation from one another and without consideration of the totality of fit versus misfit, or without consideration of the level at which individual fits or misfits emerge or the time they are identified can lead organizations down a path of needlessly addressing misfits and incurring costs that may not be necessary.

Before progressing further, we wish to make a clear distinction between the existence of a misfit and the identification of a misfit. Misfits exist because there is a lack of perfect matching between the functionality of the system and the characteristics of the organization. Indeed, many misfits may be present from the time an enterprise system is selected but these misfits may go unnoticed by both system implementers and system users. It is not until the misfit becomes visible and is recognized by members of the organization that it can become actionable. For this reason, we argue that the ability to identify misfits is generally a good thing. The arguments presented in the remaining sections of this paper primarily deal with whether the existence of misfits carry negative consequences for the organization.

With an understanding of the present state of fit/misfit research, we have developed a primary research question of this paper: Why and when might misfits between enterprise systems and elements of the organization not necessarily be undesirable for the organization? In addressing this question, we look to uncover situations where not all misfits need to be addressed by organizations. In the following sections we elaborate on two broad categories of misfits that may not be negative in nature: misfits across levels of analysis and misfits across time.

3. Theory Development

3.1 Levels of Analysis of Enterprise System Misfits

Organizations are multi-level and therefore it is necessary for constructs to be multi-level in order to capture the full range of organizational phenomena [30]. Collective constructs, or those that “describe any interdependent and goal-directed combination of individuals, groups, or institutions”, often require the analysis of phenomena across multiple levels simultaneously [31]. Because misfits can be observed at the individual, routine, or organizational level, the ES-organization misfit construct has been modeled as a collective construct [9]. However, it should be noted that Morgeson & Hoffmann [31] also caution against aggregating lower level phenomena into collective constructs because certain synergistic or neutralizing effects may be present, thus providing an inaccurate representation at the collective level.

Even though in the context of enterprise systems we are often interested in the overall impact at the organization or collective level of analysis, there are strong suggestions that this global focus may make identifying and measuring performance gains more
difficult. Gefen & Ragowski [6] demonstrate that perceived ERP benefits are better explained at the IT module level rather than the enterprise level. Furthermore, empirical evidence has shown that it is necessary to consider benefits of ERP implementation, use, and customization across different plant locations rather than simply at the organizational level [11]. Nonetheless, we need to make sure we include in our scope of measurement at least the most critical areas of fit as well as misfit. We therefore argue that cognizance of the various levels at which ES-organization fits and misfits occur is a critical component to identifying whether systems as a whole carry adverse consequences or if they may provide positive benefits.

Let us assume that across an organization, certain individuals will encounter misfits between the functionality of the ES and their assigned job duties; in other words, a “functionality imposition” in Strong & Volkoff’s [9] terminology. These functionality impositions could arise because the enterprise system requires the individual to enter additional information in the system that was previously not required in the former system. If we look at this misfit in isolation, the task-technology fit literature would suggest that performance of this task by this particular individual would be degraded [3]. However, it is possible that this additional data entered into the system results in a reduced effort for another user of the system situated in a different department in the same organization. Taken together, these two instances may actually improve the overall efficiency of the organization yet the positive performance gains recognized from the second individual would largely be ignored under the existing conceptualizations of fit and misfit in the ES literature.

We can illustrate the same phenomenon when looking across levels of the organization. For example, a new accounting system captures much more data than the previous system and accountants find it difficult to complete all required fields. In particular, each transaction must now be assigned an appropriate department code, project code, and transaction description. Since this information is not immediately available for all transactions, this represents a difficult misfit for the local accountants to overcome; or a “role imposition” according to Strong & Volkoff [9]. However, the inclusion of this additional detail for each transaction allows members of the corporate accounting team to generate the necessary financial statements for financial reporting requirements in a significantly more efficient manner. As with our previous example, the misfit for a single user or group of users was offset by positive efficiency gains at the organizational level.

Notice that in both of our examples, it is of critical importance to identify not only the misfit that is present, but also the offsetting element of fit at another location in the organization. Without the ability to adequately identify the fits and misfits that exist, an organization will not be able to accurately gauge whether the existence of a misfit is bad or not.

Empirical evidence of this phenomenon is provided in the mutual forbearance literature within the strategic management discipline. In a study of multi-national corporations, it was found that actions taken by local subsidiaries to gain competitive advantage in a local market can actually harm the overall financial performance of a firm. This is attributable to retaliatory actions taken by competitors in other geographic segments [32]. Thus, using analogous reasoning, we propose the following:

**Proposition 1a:** Misfits at a single unit of analysis may result from overall fit at an aggregate unit of analysis.

With this in mind, a strict count of misfits that occur between an ES and an organization will probably not tell the complete story. What is an apparent misfit for one user or group can potentially result in additional performance enhancements in another area of the organization. By looking at single misfits in isolation from their antecedent and subsequent processes, it is impossible to determine the true influence of the misfit. While we do not conclude that every misfit is offset by positive improvements recognized elsewhere, we simply note the possibility of that a system with visible misfits may ultimately result in performance improvement. We therefore argue that misfits between the ES and the organization do not always operate in isolation from their antecedent and subsequent business processes either within or across levels of the organization. Accordingly, we propose:

**Proposition 1b:** Misfits that occur in one organizational domain may enable fit within another organizational domain.

Thus we argue that ES-misfits associated with overall aggregate organizational fit (proposition 1a), or fit with other domains in the organization (proposition 1b), may not be adverse in their net effects to the organization. Efforts to align these misfits may result in problems in other domains or in the aggregate of the organization. Both of these propositions are concerned with the units of analysis in an organization, we now address misfits over time.
3.2 Elements of Time

There are two broad areas where time matters to an enterprise system implementation [33]. The first is measured, standard, clock time that we refer to as “calendar time,” and the second involves socially constructed time segments such as phases in the implementation process, what we refer to as “project time.” We will address each in turn.

3.2.1 Calendar Time: Specialization and Inertia. Organizational environments are always changing and organizations are subject to both environmental turbulence and internal innovation generation. In their seminal work on population ecologies, Hannan & Freeman [34] provide an account of how organizations persist given this complex changing environment. This view highlights the strong inertial pressures that organizations face and this inertia does not necessarily limit the selection of which firms survive and which ones fail [34]. Inertia increases when institutionalization and standardized routines create reproducible structures and that inertia is also likely to increase with organizational age. In essence, organizations begin to specialize such that they operate efficiently and maintain advantages over competitors. Becoming overly specialized can enable strong inertial forces that may limit the likelihood of a firm undertaking a structural change [35].

Although the foundational papers on population ecology focus predominantly on inertia in organization structure, the same basic principles have been extended into research on business strategy and competitive actions. Inertia in business strategy can arise from various sources such as executive’s tenure in a given industry, CEO tenure in a given firm, and current firm performance [36]. Furthermore, the degree of specialization of a firm’s competitive action repertoire is influenced by past performance, the age of the firm, size of the firm, and diversity of the market [37]. It is evident that many of the antecedents to structural inertia could also have an impact on the richness of strategic options and choices made by firms, as well as the degree of specialization in given organizational processes.

Whereas the seminal works on population ecology posit that structural inertia positively influences firm survival, research investigating inertia (or lack of change) in business processes shows that this can be detrimental to the success of the organization. In the US airline industry, empirical support has shown that reduced numbers of options in competitive actions degrades firm success and is more damaging to performance during times of uncertainty [37]. More specifically, support has shown that inertia is most damaging to airlines facing markets with a diverse set of customer needs and strong competitive challengers [38].

In the context of enterprise system implementations, we are primarily concerned with inertia associated with business processes and strategy. Information systems in general are presumed to contribute to an organization’s inertia in a negative manner because they provide little discretion to decision makers and enable a worldview that contains assumptions about what information is relevant and how processes should be enacted [39]. Simply put, information systems require firms to specialize in conducting business processes according to the predefined functionality of the system.

We have already argued that there is rarely perfect fit between an enterprise system and an organization, or more specifically with the specialized processes carried out by the organization. Holding this assumption, we can see that this lack of perfect fit can create opportunities to break out of inertia and specialized business processes by changing business processes within the organization [40]. Too perfect an alignment with a given organizational environment at one point in time may make it difficult to adapt to changes in a subsequent point in time. Just as general species adapt to changing environments better than those that are highly specialized for the previous environment, so can misfit enterprise systems allow for organizational adaptability in the face of change. As with our other arguments, a critical element is the actual identification of the misfit. Without the ability to identify the misfit and assess its impact on existing specialized business processes, the misfit will always result in negative performance impacts.

Further, in the face of strong inertial pressures, organizations may favor the customization of the system rather than changing their internal processes. Such customizations are costly, difficult to perform, and are generally not recommended [41] so this approach may be considered suboptimal.

Inertia and over-specialization can be detrimental to firm performance, even resulting in failure. Misfits can provide opportunities to break out of inertial forces. Therefore misfits may in fact be beneficial to the firm under conditions of high environmental turbulence. Furthermore, the changes implemented in response to these misfits can create digital options that provide the organization with a wider repertoire of possible actions that can be undertaken in the future [42]. The simple presence and identification of a misfit can serve as a catalyst for breaking an inertial pattern thus serving as an opportunity to not only overcome the existing misfit but also to address
future misfits that have yet to be identified. Given these arguments, we propose:

**Proposition 2a – Misfits between the enterprise system and the organization represent opportunities to disrupt the inertia and specialization in existing business processes, which can lead to performance benefits for the organization.**

Negative performance impacts of competitive action inertia are more pronounced when an organization is situated in uncertain environments [37]. Although not specifically linked to the dynamic capabilities framework, Miller & Chen’s study provides empirical support for the notion that organizations with capabilities to manipulate resources into new value-creating strategies (dynamic capabilities) can achieve sustainable competitive advantage [43], [44]. The dynamic capabilities literature also suggests that such capabilities are based on “meta-routines” which enable changes of routines for organizations situated in turbulent environments [45].

Combining the dynamic capabilities framework with previous studies on organizational inertia and population ecology, we suggest that under conditions of environmental turbulence, inertia can inhibit organizations from appropriately adapting to and responding to necessary changes in the environment. As stated in proposition 2a, a misfit can represent an opportunity to break inertial forces within an organization. Beyond this, misfits can result from human efforts to reconcile or loosely couple [14] activities with a standardized system. These individuals must conform to standards of the enterprise system but do so in a reflexive way that consciously navigates the limits of the system [46]. In this sense, individuals act like human shock absorbers between situated practice and the standardized system [47]. Because breaking out of inertia can enable change within organizations and change is necessary to adapt to turbulent environments, and human reflexivity can most readily deal with complexity, turbulence, and unpredictability, we propose:

**Proposition 2b: Misfits between the enterprise system and the organization can be reconciled through human adaptability; and this adaptability can be advantageous to the organization under conditions of high environmental turbulence.**

### 3.2.2 Project Time: Misfits Across Implementation Phases

It is generally believed that misfits are not always identified immediately upon implementation of a new system and that it may take upwards of one year to identify them [48]. Therefore, much of the research on ES-organization misfit has followed implementation projects over time such that misfits can be identified and researchers can track how they are resolved [9], [49]. Wei and associates [8] provide empirical data to show that misfits cascade over time and present challenges for organizations as they attempt to address the cascading effects. Other research has shown that addressing a misfit at one point in time may lead to subsequent misfits at later times [25]. While these studies begin to outline how the effects of misfits may change over time, they generally fail to address the differing organizational influences that are exerted depending on the project phase in which a misfit emerges.

An enterprise system’s life cycle can be broken down into four primary phases: chartering, project, shakeout (use & maintenance), and evolution [26]. Chartering and project phases together involve all tasks that are undertaken by a firm prior to the initial go-live – what we refer to as pre-implementation. [50]. The shakeout phase includes the initial utilization of the newly implemented system with the expectation of benefits as well as maintenance and optimization to correct for minor malfunctions [50]. The evolution phase of an enterprise system’s life involves adding and integrating capabilities into the system to obtain additional benefits and prolong its life [50].

The distinction between existing misfits and identified misfits is most critical to our reasoning in this section. It may be possible that a misfit exists through the entire pre-implementation stage of the project yet it goes unidentified until the shakeout phase. As we will outline in greater detail below, this single misfit may influence the organization in very different ways depending on whether it is identified in the pre-implementation or the shakeout phase of the project.

Pre-implementation is largely characterized by system selection, requirements gathering, and testing. Fit generally serves as a selection criterion for the decision to acquire an enterprise system. Those systems that are perceived to have a great deal of misfits are either removed from consideration or the extent to which business processes would need to be modified is evaluated [51]. In a way, we can argue that misfits identified during the selection process are valuable to the organization because they prevent the organization from adopting a system that is likely to result in a failed implementation.
In terms of requirements gathering and other pre-implementation tasks, much of the literature focuses on methodologies and success criteria [50]. These project tasks represent a significant opportunity to identify required functionality, evaluate how business processes may need to be altered, and set the tone and expectations for end users [49]. In this manner, these remaining pre-implementation tasks represent a significant opportunity to identify areas where inertia currently exists in business processes and how that inertia can be overcome through system implementation. Therefore, misfits identified during this phase should be carefully evaluated to identify where positive change can be introduced across the organization. In sum, misfits identified in the pre-implementation phase should not always be judged to carry negative organizational consequences and careful consideration should be made prior to addressing or resolving those misfits.

Once the system goes live and users begin utilizing the system, the shakeout phase begins. The bulk of the research on ES-organizational fit examines this phase and highlights the negative qualities of fit at this point in the project. This is primarily because once the system has gone live, it is much more difficult to customize elements of the system to suit the needs of the organization [8]. User resistance and costly modifications to the system and/or business processes are often encountered when misfits are identified at this point in the project [9], [49]. In line with the traditional view of fit/misfit, we agree that most misfits identified during this phase of the project will result in negative outcomes for the organization.

After time, the system stabilizes and new inertial forces begin to set in. The system evolves over time to add and integrate capabilities in hopes of obtaining additional benefits [50]. It is a common assumption that organizations must continue to evolve and adapt their enterprise systems in response to challenges they face from turbulent and changing environments [41]. These changes in the environment generally arise in the evolution phase of an enterprise system and can cause misfits between the system and the organization that were not originally planned for. Similar to the pre-implementation phase of an enterprise system, misfits that are identified in this phase can represent opportunities for positive change: either to the enterprise system or to business processes.

To summarize, we argue that misfits exert different influences on the organization depending on when they are identified. This leads us to propose an inverted U-shape relationship between ES life-cycle phase and the likelihood of the misfit resulting in performance degradations as stated in proposition 3 and graphically depicted in figure 2.

**Proposition 3:** The likelihood of misfits resulting in negative consequences to the organization follows an inverted U-shaped curve over the life-cycle of the system where the likelihood is lowest when misfits are identified during the pre-implementation and evolution phases and is highest during the shakeout phase.

![Figure 2: Likelihood of negative consequences resulting from misfits over time](image)

4. Discussion & Conclusion

*Man needed one moral constitution to fit him for his original state; he needs another to fit him for his present state; and he has been, is, and will long continue to be, in process of adaptation. And the belief in human perfectibility merely amounts to the belief that, in virtue of this process, man will eventually become completely suited to his mode of life.* - Herbert Spencer [52]

Just as Spencer’s notion of the fitness of species to their environment helped clarify Darwin’s natural selection, we believe it is necessary to call attention to the changing forces that influence the nature of fit in enterprise systems. Spencer’s quotation indicates that in a changing, evolving world, fit is necessarily a fleeting state. What fits today will likely not fit so well tomorrow. Thus any notions of fit as a stable, or “permanent,” state might be a bit unrealistic given the turbulent perennial gale of change in contemporary society [53]. Therefore, misfits are inevitable and, given this notion, we find it difficult to agree with the commonly held assumption that all misfits are necessarily bad for organizations.
The extant literature on fit, and specifically on enterprise system-organization fit, assumes that fit is the ideal state and that misfits should be minimized or eliminated. Since fit is a dynamic principle, research has focused on overcoming misfits in order to bring greater alignment between systems and organizations [9], [10], [28]. While we do not discount the potentially negative effects of misfit on ES implementation success and organizational performance, we challenge researchers to consider relaxing the assumption that misfits always lead to performance degradation. It is important to note that we are not attempting to say that practitioners and researchers should hope for misfits during the implementation of enterprise systems. Instead, through this work we hope to caution researchers and practitioners to think about misfits on multiple levels and in the context of changing organizational environments. Misfits are inevitable and perhaps we should not be so quick to judge them as adverse to the organization.

In this paper, we have departed from the traditional evaluation of what leads to misfit and how can we overcome identified misfits. Instead, we question the assumptions made in this stream of literature and challenge the reasoning that all misfits are bad. We theorize that misfits can help organizations overcome the inertia that can limit their performance potential. We also propose that misfits should not be evaluated in isolation from dependent and complementary business processes; either within the same level of analysis or across multiple levels. A misfit perceived by one individual or group may actually enable even greater performance benefits to another individual, group, or the organization as a whole. While the traditional task-technology fit literature is useful for explaining performance of individual tasks by individual persons, we propose that researchers investigating ES-organization fit must extend beyond the basic principles of TTF because of interdependence between multiple individuals, groups, and routines in achieving organization-level goals.

Our second primary contribution extends beyond simply identifying why misfits may be beneficial to organizations and identifies contingency factors for when these misfits may be more beneficial and when misfits are detrimental. In stable environments, the pressure to break out of inertia is significantly lessened. However, under periods of significant change and turbulence, organizations must be able to effectively adapt to their changing environments. In the latter case, misfits can serve as opportunities for change and should therefore be evaluated as potential catalysts for breaking inertia. The second contingency factor we propose is time. The existing literature does not address how misfits identified at different stages of an enterprise system’s life may exert different influences on the organization. We propose that misfits identified during the pre-implementation and evolution phases of a system are less likely to carry negative consequences. Misfits identified in the shakeout phase (of which the bulk of the extant literature focuses on) are generally cumbersome and have the greatest likelihood of degrading the performance of the organization. These differing consequences can be attributable to many factors. Misfits identified during the shakeout phase often require significant costs to overcome and organizations may hastily choose courses of action resulting in negative performance impacts. On the other hand, in the evolution phase new inertial forces may set it, thus providing great opportunity to carefully adjust organizational practices or the system itself in response to newly identified misfits.

A third contribution of this paper is more practical in nature. A central theme is the notion that misfits present opportunities for change: to either packaged enterprise systems or to organizational practices. It is possible that both organizations and ES developers can mutually benefit from a thorough investigation of the consequences of misfit. Organizations may realize the power of best practices built into such systems and software developers can realize the benefits associated with identified misfits such that future versions of their software are more adaptable and aligned with the needs of their customers as alluded to in previous literature [54].

In closing, we recognize that this manuscript is conceptual in nature and empirical exploration is necessary to further develop these ideas. We propose that future research should question whether misfits only carry negative qualities and challenge researchers to investigate bold propositions that may actually identify positive qualities of misfits. In particular it is critical to observe situations across levels and across time to determine the degree to which misfits are adverse to organizations in context. An obvious first step in furthering our understanding of this concept is to empirically evaluate the propositions laid forth in this paper. We also challenge researchers to take an inductive, grounded approach to investigating this issue, as we do not claim the factors identified in this manuscript is exhaustive. Further exploration of other contingency factors can help identify a more robust model of misfits. Alternately, future research could further investigate whether different types of misfit carry different consequences for organizations.
Research has not exhausted the topic of enterprise systems and the challenges organizations face when implementing them. In this essay we offer a new approach to evaluating misfits between enterprise systems and organizations provides a new avenue by which enterprise system research can continue to evolve.

5. References