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Organizational Imprinting: Informing Firm Behavior in Domestic and International Contexts

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ABSTRACT

We argue that organizational imprinting theory provides an important causal mechanism and originating source for numerous behaviors which are applicable to several research literatures. We briefly explain the imprinting process, how the imprinting process can be informed by other theories, and how imprinting may be better utilized than some frameworks such as inertia or social embeddedness to understand the initiation of firm behavior. We follow with examples from organizational behavior, organizational change and learning, entrepreneurship, and mergers & acquisitions where imprinting theory could be used to explain observed behaviors along with potential avenues and ideas for future research in these literature streams. We end with suggestions for research in different international contexts since the imprint mechanism and effect may be more pronounced in such conditions.

STATEMENT OF INTENT

This paper working paper's intent is to bring back researchers' attention to a potentially powerful theory to understand firm behavior. This work offers the opportunity to expand into a several distinct papers. First, this version is intended to be a review paper which links to the needs of other research literatures. Many of the key points to be addressed are proposed in this paper. Second, this paper also provides the core of a theory paper regarding the details of imprinting theory. Imprinting research, in our opinion, is in need of a true theory paper to define expected relationships and constructs to consider. Third, the questions from the two items above offer the opportunity for empirical testing, especially in cross-border contexts. Any and all comments to the authors are welcome.

INTRODUCTION

For management scholars, understanding firm performance is a fundamental part of research. To understand performance, researchers have used theoretical frameworks related to organizational change and learning, organizational behavior, entrepreneurship, and mergers & acquisitions. However, these approaches do not fully explain what initiates the behavior of interest. We suggest that the imprinting theory of Stinchcombe (1965) and work building from that theory provide insight into the creation and initiation of numerous aspects of organizational behavior. Specifically, this paper sets out to: (1) Indicate examples where we believe research has misclassified certain relationships as something other than organizational imprinting, (2) Explain how organizational imprinting can contribute to improved understanding of the initiation sources of organizational behavior, and (3) Provide guidance regarding research opportunities in international contexts for understanding this theory. By doing so, we seek to move organizational imprinting from an understudied and under-theorized part of management studies to an area where it can more fully contribute to our understanding of firms.

Organizational imprinting theory (Stinchcombe, 1965) suggests that the context at the time of founding imprints on the enduring activities of the organization. Subsequent research suggests that imprinting may have long lasting effects upon the strategies, strategic choices, and operating practices of firms (Bamford, Dean, & McDougall, 2000; Boeker, 1989; Kriauciunas & Kale, 2006; Kimberly, 1979; Schein, 1983). As such, organizational imprints establish powerful behavior guidelines that affect organizational choices and performance. If imprints are critical to firm behaviors and choices, then achieving competitive advantage and above normal returns may be dependent on organizational imprints.

Our review of organizational imprinting indicates the richness of the theory with regard to its ability to explain how the founding environment and the founder influence subsequent firm behavior. In so doing, we believe our research provides several contributions. First, our results suggest that other frameworks can inform us regarding the imprinting process which would improve empirical tests regarding imprinting mechanisms and contexts. Second, the rigidity and longevity of firm behavior could be better understood by using organizational imprinting in combination with or in place of other management theories. Finally, our work suggests that imprinting may be a helpful causal mechanism to explain observed behavior and the origins of such behavior in varied situations related to organizational behavior, entrepreneurship, and mergers & acquisitions (M&As). Our review of this literature also identifies several areas that offer future research opportunities as well as how different economic environments can support imprinting research.

The paper will be organized as follows: the next section provides a review and explanation of organizational imprinting including theories that can inform us regarding the imprinting process. We then consider how other frameworks for explaining firm behavior may be organizational imprinting by another name. The paper closes with a discussion of how future research can and should incorporate organizational imprinting to better understand firm behavior.

ORGANIZATIONAL IMPRINTING OVERVIEW

In this section, we briefly review the literature regarding organizational imprinting. In a future draft, we will present an overview of the major imprint articles in Table 1 and categorize the articles based on whether they can inform us on organizational behavior, organizational change and learning, entrepreneurship, or M&As.

[\[Insert Table 1 about here\]](#)

Organizational imprinting theory (Stinchcombe, 1965) argues that the structure of the firm is a reflection of its founding environment. The founding environment may include the external environment, the founder influences, or both. These are called imprinting forces. Stinchcombe's (1965) research suggests that economic and technical conditions, the imprinting forces, determine the appropriate organizational form in terms of social structure. These social structures tend to become accepted practice and therefore remain fairly stable over time, which is defined as being imprinted. In this way, the social and economic context at the time of founding imprints on the enduring activities of the organization. Subsequent research suggests that imprinting may have long lasting effects upon the strategies, strategic choices, and operating practices of firms (Bamford, Dean, & McDougall, 2000; Boeker, 1989; Kriauciunas & Kale, 2006; Kimberly, 1979; Schein, 1983).

Organizational imprinting related to the founder focuses on the initial culture or knowledge that founders bring (Mintzberg and Waters, 1982; Eisenhardt and Schoonhoven, 1990; Kimberly, 1979). Schein (1983) explains in detail how the influence of the founder remains with the firm. The reasons include design of physical spaces and buildings, formal statements or organizational philosophy, organizational systems and procedures, founder reactions to key events or crises, and stories and legends about the founder during important events. Organizational imprinting caused by the environment has received even greater attention in the literature (Bamford, Dean, and McDougall, 1999; Romanelli, 1989; Pennings, 1982; Boeker, 1989). The core idea of this research is that founding environments favor certain types of structures and strategies and these structures will continue even as the firm's environment shifts.

There is great variation concerning the target of the imprinting and the resulting unit of analysis. Past research on imprinting has examined the concept at the country level (Kogut, 1993),

populations of organizations (Tucker, Singh, and Meinard, 1990; Pennings, 1982), and alliances (Doz, 1996). For example, Kogut (1993) hypothesized that a multi-national corporation's founding country and related systems influenced the operations of the multi-national firm around the world. Tucker, Singh, and Meinard (1990) focus on the impact of population dynamics and institutional changes on the founding patterns of voluntary organizations. They find that specialist organizations are more effected by changes, since their focus and specialization makes it harder for them to change.

Beyond founding conditions, Stinchcombe (1965) further defined traditionalizing forces as events subsequent to founding which solidify the imprinting effect (Boeker, 1989). Additionally, the reinforcing mechanisms and the origin of the behavior may be interrelated in some, but not all, cases. For example, powerful founders are the source of the imprint and they continue to exert influence on the firm that traditionalizes the imprint. A similar situation may be present in state-owned firms that were created by the government (Kriauciunas & Kale, 2006).

The management literature has an array of theories and concepts that can inform us further regarding traditionalizing forces. For example, Romanelli & Tushman (1994: 1143) suggest that inertia (Hannan & Freeman, 1984) and institutionalization (Meyer & Rowan, 1977; DiMaggio & Powell, 1982) develop "systems of shared understandings" which imprints the behavior. The establishment of organizational routines (Nelson & Winter, 1982) is known to constrain organizational behaviors. Founders and entrepreneurs use their power to force their beliefs upon the organization (Hofstede, 1985). Institutionalized legitimacy can explain what behaviors are acceptable to employees (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Scott, 1995). The processes of selection, self-selection, and socialization retain employees with acceptable fit between individual values and organizational values (Hofstede, 1985). In this way, the organizational imprint is

reinforced by employees of similar values. Many models of organizational behavior are based on learning or adaptation based on organizational experience (March & Simon, 1958). This suggests that experiential learning (Fiol & Lyles, 1985; Levinthal & Myatt, 1994) may provide a mechanism to reinforce and to imprint the behavior. The full paper will examine these relationships in greater detail.

Although different mechanisms are potentially responsible for reinforcing imprinted behaviors, there is also a set of work that confuses organizational imprinting with these reinforcing mechanisms. In particular, the confusion is with inertia, social embeddedness, and social institutions. We briefly explain the confusion below and will develop this topic further in the full paper.

Imprinting and Inertia

Inertia and imprinting are sometimes discussed as though they were equivalent since both indicate stability and persistence in behavior. We view inertia as an inability to change (Hannan & Freeman, 1977, 1984) whereas imprinted behaviors follow an organizationally prescribed behavior that has been accepted as appropriate (Stinchcombe, 1965; Boeker, 1989). Since the processes that lead to imprinting are different than those that lead to inertia, the theoretical constructs and measures will also be different. While organizations grow more inertial with size, age, and complexity (Hannan & Freeman, 1977, 1984), these measures would not be appropriate for analyzing imprinting. Since organizational imprinting theory explains the origins of behavior that are still observed in the firm, appropriate constructs would need to consider founding conditions and how the resulting behaviors are still influential in the firm. These require identifying an imprinting measure that is distinct from inertia measures. Imprinting measures should link most closely to the source of imprinting – founder characteristics or environmental characteristics.

Imprinting and Social Embeddedness

Socially embedded behavior (Uzzi, 1997; Uzzi & Spiro, 2004; Marquis, 2003; Walker, Kogut, & Shan, 1997) and imprinting both define a set of organizationally established behavioral norms which provide stability and may resist adaptation to changed situations. Behavior, and economic interaction, is often embedded in social relations (Granovetter, 1985). These social structures may have political, social, cultural, and moral aspects (Granovetter, 1985; Scott, 2008) which tend to be enduring (Kogut, 1993; Marquis, 2003). Marquis (2003: 659) clarifies the imprinting argument by stating; “A key difference between path-dependence arguments and an imprinting argument, however, is that a path-dependence perspective focuses on general persistence; in an imprinting argument, while persistence is important, equally important is how the founding social conditions influence the social form.” We believe that the origins of socially-embedded behavior may be based on imprinting. Likewise imprinted behaviors may be reinforced by social-embedding processes. Consequently, the research process must consider initial conditions versus evolution over time.

Imprinting and Social Institutions

Social institutions (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Scott, 1995, 2008) and imprinting may be analyzed in a similar manner. Both define a set of persistent behavioral norms or institutional logics (Scott, 2008). These logics may be established as a founding imprint or established over time in an intra-organizational institutionalizing process (Selznick, 1957). Institutional theory suggests that organizations must conform to the rules and belief systems prevailing in the environment in order to survive (DiMaggio and Powell, 1983; Meyer and Rowan, 1977; Scott, 2008), whereas imprinting suggests organizations will maintain behaviors consistent

with the founding environment. In this way, imprinting forces create the behavior and institutionalization processes traditionalize it. With this difference, it may be problematic to determine whether an organization has been institutionalized to an environment or imprinted by it unless the environment has changed significantly. Once again, researchers must consider path dependency and founding conditions.

USING ORGANIZATIONAL IMPRINTING

We consider Organizational Imprinting the forgotten theory, since the impact of imprinting has been understudied, under-recognized, or both. We believe this has occurred due to two reasons: (1) research that reflects organizational imprinting has been misclassified as something other than imprinting, and (2) research related to firms has not fully addressed the initial point of firm behavior which is a topic that can be enhanced by imprinting theory. We acknowledge that it is difficult to separate behaviors and causal mechanisms, especially those with similar theoretical foundations. We believe that imprinting theory may ease this challenge. Next, we will briefly review where imprinting may better explain conclusions in previous work by using examples from the literature with a fuller development in the final paper.

Imprinting by another Name

Institutionalism. Oliver (1997: 701) argues that “institutional theorists assume that managers commonly make non-rational choices bounded by social judgment, historical limitations, and the inertial force of habit.” She also discusses cognitive sunk costs as “deeply embedded knowledge sets” and provides examples of a firm’s reluctance to digress from its founder’s vision and the unwillingness of top management to be disloyal to corporate traditions. Further, Roth and Kostova

(2003: 316) invoke the idea of institutional baggage to refer to the “ingrainment and pervasiveness of the institutional arrangements that existed prior the radical change”. In our view, these could be equally viewed as imprinted aspects to address where and how such traditions begin with institutional baggage as a measure for the strength of institutional imprinting. Further, institutionalism can assist in understanding the complexity of a firm’s founding environment.

Culture. Hofstede (1985) posits that the founder’s values, both national and individual, get reflected in the organization’s culture and values. This view also reflects previous work regarding the influence of the founder at founding. Related work on country imprinting (Kogut, 1993) also reflects the influence of national culture on firm performance. In our view, this literature indicates the potential for national cultural values, systems and organizational cultural values to be imprinted upon the organization.

Stickiness. Kogut and Zander (2000) studied the effects of socialist and capitalist systems on innovation at a German optics firm that was split into two companies at the end of World War II. They argue that “initial institutions have persisting effects” (Kogut & Zander, 2000: 170). They posit that the difficulty of transition for the socialist division after German reunification was due to inertia-based stickiness, but this stickiness could be viewed as a socialist imprint from the division being rebuilt in East Germany after WW II. In this way, imprinting as a causal mechanism may explain why behaviors become sticky.

Using Organizational Imprinting to Understand Subsequent Firm Behavior

While many researchers view imprinting theory as an explanation for persistent behavior, we suggest it also provides insight to origins of behavior (Marquis, 2003). We take this view since there is general agreement that “organizations establish an initial pattern of activity based on environmental conditions prevailing and the managerial decisions made during their time of founding” (Boeker, 1988; Kogut, 1993; Romanelli & Tushman, 1994: 1143). We will briefly review how imprinting theory may support literature streams concerning firm behavior and provide related questions. The links between imprinting and these frameworks will be developed further in the full paper.

Firm behavior. Management scholars have historically asked why firms behave as they do to determine which behaviors result in superior performance. In this light, imprinting can be studied using various dependent variables. For example, how will organizational imprints affect the organization’s building of resources and capabilities? How much of firm performance is due to imprinted behavior? How does this relationship change over time or with environmental changes?

Organizational change and learning. Darr, Argote, and Epple (1995) found that knowledge did not transfer across stores owned by different franchises, but knowledge did transfer across stores within a franchise. It would be interesting to evaluate how owners imprint their franchise organizations with regards to knowledge transfer and openness to sources of ideas for improvement.

The organizational change literature can benefit by further exploring the un-learning of imprints and the creation of new imprints. How are imprints adapted over time, if at all, through learning mechanisms? In what ways are imprints rigid or inertia laden? What are the evolutionary paths of

imprints, if they change? How do organizations integrate imprints into the evolving organizational culture? How does the imprinting of norms and values shape the cognition of organizations?

Entrepreneurship. Founding firm environment and founders have been shown to have a profound impact on the future growth of firms (Baron, Hannan, & Burton, 1999; Eisenhardt & Schoonhoven, 1990; Kimberly, 1979). The entrepreneurship area has provided particularly strong empirical studies of the effects of founders and founding conditions in various contexts and industry categories. However, the origins of firms and the behaviors of successful entrepreneurial firms are in need of further study. Can entrepreneurial firms imprint 'flexibility' into their culture and if so, how? How do founders imprint their previously held beliefs onto new organizations? Can imprinting inform us regarding the difficulty of a founder passing the company to professional managers for further growth?

Mergers & acquisitions. The M&A literature indicates that one of the greatest sources of acquisition failure is the inability to integrate the two companies into one (Chatterjee et al., 1992; Nahavandi & Malekzadeh, 1988). However, no previous work on organizational imprinting has directly considered the influence of imprinting on mergers and acquisitions. Since imprinting originally considered the influence of founding conditions on structure, linking imprinting and acquisitions is a natural combination. Does acquisition performance depend on common versus different founding conditions for the two firms? For cross-border acquisitions, if founding time periods are different, but conditions are similar, how is the integration process affected? In a merger of equals, is the new firm re-imprinted or does one imprint dominate the other?

These examples are intended to convey where imprinting theory may enlighten existing research. We hope this small set of examples may stimulate researchers to consider how imprinting theory may apply in other contexts. One unifying question for the above ideas that remains unanswered is: what are the limits to organizational imprinting? Although Stinchcombe (1965) considered imprinting on organizational structure, subsequent work has shown imprinting extends beyond structure. It is unlikely to extend to all parts of the firm, but that limit has not yet been identified.

TESTING OPPORTUNITIES IN INTERNATIONAL CONTEXTS

We believe that there are excellent test contexts in the transition and developing economies of the world. This is because for imprinting to be observed adequate change in the environment or behaviors must have occurred so that the differences between imprinted groups and non-imprinted groups are measurable. These types of changes are accelerated in transitional and developing economy situations.

Some recent work on imprinting considers transitional economies (Allmendinger and Hackman, 1996; Kogut and Zander, 2000; Kriauciunas and Kale, 2006). In former Soviet countries a Communist-imprint can be evaluated. This approach can use a dummy variable for coding (Communist founded or not) and then consider the influence of the founding environment on current operations of the firm. With sufficient investigation, this approach can be extended beyond considering just two economic environments. Dobrev (2001) considers the Bulgarian newspaper industry over a 150 year period. In transitional economies, there is a sub-set of firms founded prior to the establishment of Communist systems in those countries (1918 or 1948). So, considering whether a free-market imprint survived through two shocks can both inform firm survivability and flexibility in difficult environments. Such research may benefit from multiple-country approaches to

deal with country-specific variables. One difficulty with using a dummy variable for such research is that the variable is often highly correlated with age of the firm. So, there is a potential need to consider an industry level imprint with the understanding that certain industries may be more influenced by government ownership than others. For example, Communist governments are likely to be more involved in industrial products than in consumer or food products.

In emerging economies, a different dichotomy for imprinting may be present. Rather than Communist or non-Communist (each of which has distinct institutional systems), the dichotomy may be of market and non-market oriented environments. The shift from one environment to another may be more gradual than in transitional economies. Peng's (2003) work in institutional transitions provides the foundation for considering a relationship-based imprint in comparison to a market-based imprint. As in transitional economies, the relatively rapidly changing, developing economy environments allow us to view imprinting's influence on organizational behavior or strategy over a short period of time. This is in contrast to stable or slowly changing environments where imprint studies may be much more difficult to undertake.

In developing economies, it is harder to identify distinct founding environments as the changes tend to not be as sudden as in the developing and transitional economies. One example of developed economy research is by Boeker (1989) who considers four different founding environments for semiconductor firms. Each founding period is approximately 8-10 years. He develops an argument as to how each founding environment favored particular functional areas in the firm based on the type of customer and competition dominant at that time. He found that functional areas favored by the initial environment continued to be a dominant area within the firm. Other research could consider pre internet and internet time period imprinting as well as deregulation shocks which can fundamentally alter the competitive environment.

CONCLUSION

The main goals of this study were to explore how organizational imprinting has been confused with other frameworks and to show how organizational imprinting can improve our understanding of the initial sources of organizational behavior. We believe our results offer several contributions. First, our review of organizational imprinting reminds researchers of the theory's potential to explain behavior based on the firm's founding conditions. Second, our paper suggests that imprinting can better explain persistent firm behavior while other theories can inform us regarding imprinting's reinforcing mechanisms. Finally, our results suggest that imprinting may be a useful theory to understand observed behavior and the origins of such behavior across several diverse research streams such as entrepreneurship, organizational change and learning, organizational behavior, and M&As. The reviewed research suggests that imprinting may establish powerful behavioral guidelines that will have long lasting effects upon the strategies, strategic choices, and operating practices of firms. The reviewed research suggests that the imprinting theory of Stinchcombe (1965) provides insight into the creation and continuation of numerous aspects of organizational behavior. As such, there yet remain numerous fascinating questions using imprinting theory that will apply to a very broad array of research literatures.

The dynamically changing environments of emerging, transitioning, and developing economies offer natural experimental settings in which to capture environmental imprinting phenomenon. These environments provide a rich source of information by which we can enlighten imprinting theory. Such theoretical knowledge will provide insight to organizational behavior and its origins. We call to

researchers in international areas to consider imprinting theory and to consider its power in helping to explain the origins of organizational behavior.

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but are appropriate for the full paper)

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TABLE 1
Overview of Imprinting Theory Literature

Researcher / Year	Source of Imprint	Traditionalizing Forces	Level of Imprint	Dependent Variable	Context/Sample	Key Results
Organizational Behavior and Performance						
Organizational Change and Learning						
Entrepreneurship						
Mergers & Acquisitions						