



# Opportunities and institutions: A co-creation story of the king crab industry



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## ABSTRACT

If entrepreneurs are constrained and shaped by existing institutions, how? If entrepreneurs products and services, how can institutions remain unchanged? This paper explores this theoretical conundrum empirically through the examination of the actions of entrepreneur Lowell Wakefield. Contrary to previous work that suggests that it is institutional entrepreneurs that bring about institutional change as a means of advancing their social interests, this paper shows that a profit-seeking entrepreneur without prior institutional affiliation or experience can create an opportunity along with the supporting industry standards and regulations.

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## 1. Executive summary

There is growing interest in the relationship between institutions and entrepreneurship (Aldrich and Fiol, 1994; Greenwood and Suddaby, 2006; Hardy and Maguire, 2008). While traditional views consider institutions to be constraining forces on the actions of actors within a specific context (Scott, 1987; 2001), recent scholarship on “institutional work” has focused on understanding how actors may use deliberate purposeful practices to change and even create institutions (Jepperson, 1991; Lawrence and Suddaby, 2006). Such actors, termed institutional entrepreneurs, envision changes in institutions as a means of advancing their social interests that have been suppressed by current institutional rules and norms (DiMaggio, 1988). However, this current designation of institutional entrepreneurs seems disconnected from the traditional notion of what entrepreneurs do—that is, enact opportunities in the pursuit of wealth creation (Alvarez and Barney, 2004; Shane and Venkataraman, 2000).

Work on entrepreneurial action and decision-making suggests that opportunities are not pre-determined but instead the outcome of a socially constructed iterative enactment process between entrepreneurs and other actors under conditions of uncertainty (Alvarez and Barney, 2007; Alvarez et al., 2013; Garud and Karnoe, 2003; Sarasvathy, 2001; Wood and McKinley, 2010). However the formation of opportunities has been examined mostly in isolation, and even less examined is how the actions of profit-seeking entrepreneurs that are forming opportunities may modify, even create, institutions as part of the entrepreneurial process (Demsetz, 1967, 1968; Wright and Zammuto, 2013).

Research that considers the profit-seeking entrepreneur's actions as if their response to institutions is pre-determined hinders our understanding of the effects this type of entrepreneur may have on the origins of institutions. Indeed, though institutional theory

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contends that institutional pressures and expectations place demands on actors to conform (Scott, 1987, 2001), entrepreneurs do not conform when the goal of the unfolding opportunity formation process is to bring about new products and services. This leads to a theoretical contradiction: If entrepreneurs are constrained and shaped by existing institutions, how do they bring about new products and services? If entrepreneurs bring about new products and services, how can institutions remain unchanged? This paper addresses the question: can the accumulated actions of profit-seeking entrepreneurs, in the process of forming an opportunity, co-create new institutions?

This paper investigates this question empirically using an in-depth historical case study method (Eisenhardt, 1989; Tripsas and Gavetti, 2000; Walsh and Bartunek, 2011; Yin, 2009), examining the actions of entrepreneur Lowell Wakefield and his team as they create new industry standards and government regulations in order to support the for-profit king crab opportunity. Using an historical approach allows for an event driven explanation (Van de Ven, 2007), as the process of co-enacting the opportunity and the corresponding institutions unfold over time.

This paper fully brings the profit-seeking entrepreneur into the process of institutional work (Lawrence and Suddaby, 2006). The paper contributes to both entrepreneurship and institutional theory by providing a detailed description of precisely how a profit-seeking entrepreneur in the process of creating an opportunity also co-creates the institutional standards that govern their environment. Contrary to previous work that suggests individuals must be embedded in the industry and have prior industry affiliation and experience in order to frame an emerging industry (Brenner and Tripsas, 2012; Garud et al., 2002), this paper shows that the creation of new standards can be led by a pioneering entrepreneur without prior industry affiliation and experience.

## 2. Introduction

There is growing interest in the relationship examining institutions and entrepreneurship (Aldrich and Fiol, 1994; Greenwood and Suddaby, 2006; Hardy and Maguire, 2008). This scholarship uses entrepreneurship to reintroduce agency, and thus change, into existing institutions and calls these change agents institutional entrepreneurs (Aldrich and Fiol, 1994; Garud et al., 2007; Greenwood and Suddaby, 2006; Navis and Glynn, 2010; Santos and Eisenhardt, 2009). These institutional entrepreneurs are actors who envision changing institutions as a way to advance interests suppressed by current institutional norms (DiMaggio, 1988; Waldron, 2015-in this issue). However, less examined are the actions and practices of profit-seeking entrepreneurs forming opportunities that may concurrently require the modification or creation of institutions as part of the entrepreneurial process (Demsetz, 1967, 1968; Lawrence and Suddaby, 2006; Wright and Zammuto, 2013).

In the field of entrepreneurship, scholarship on entrepreneurial action and decision-making is increasingly interested with entrepreneurial agency in the formation of opportunities (Alvarez and Barney, 2007; Sarasvathy, 2001). This work suggests that opportunities are not pre-determined, but instead the outcome of a socially constructed iterative enactment process under conditions of uncertainty, between entrepreneurs and their stakeholders that result in new products and services (Alvarez and Barney, 2007; Alvarez et al., 2013; Garud and Karnoe, 2003; Sarasvathy, 2001; Wood and McKinley, 2010). Yet, despite the theoretical richness on the opportunity perspective, with few exceptions, the formation of opportunities has been examined absent the institutions in which they are embedded (Wright and Zammuto, 2013).

Research that considers the profit-seeking entrepreneur's actions as if their response to context is pre-determined hinders our understanding of the effects this type of entrepreneur has on the origins of institutions. Institutions are not just background noise to entrepreneurial action (Bruton et al., 2010; Meyer et al., 2009) entrepreneurs do not just blindly respond to what exists, their purposive actions and practices are aimed at change. The competing contradiction—of institutions as rational formal structures that emphasize continuity and conformity, and entrepreneurship that emphasizes innovative action and practices by individuals resulting in change and unintended consequences—has been described as a paradox (DiMaggio, 1991; Garud et al., 2007). This tension between institutional theory and entrepreneurship theory suggests two equally unanswered sides of a coin (Garud et al., 2007). If entrepreneurs are constrained and shaped by existing institutions, how do they bring about new products and services? If entrepreneurs bring about new products and services, how can institutions remain unchanged? Do the actions of profit-seeking entrepreneurs forming an opportunity change institutions? Can the accumulated actions of these profit-seeking entrepreneurs co-create the institutions in which they are ultimately embedded? This is the question this paper seeks to answer.

This paper investigates the question of how accumulated entrepreneurial action can co-create opportunities and institutions empirically using an in-depth historical case study method (Eisenhardt, 1989; Tripsas and Gavetti, 2000; Walsh and Bartunek, 2011; Yin, 2009). An historical approach to opportunity creation allows for an event driven explanation (Van de Ven, 2007) as the process of co-enacting the opportunity and the corresponding institutions unfold. Lowell Wakefield and his team, the earliest entrepreneurs to successfully commercialize king crabmeat in the United States, co-created the opportunity for the mass consumption of king crabmeat over three decades, together with the institutional standards and regulations that governed the new market and industry. Research questions that study adaptations and changes in social life—brought about by individual actions that unfold and evolve over time—are well suited to process research, particularly in areas of nascent theory (Bresman, 2013; MacKay and Chia, 2013; Van de Ven, 2007; Yin, 2009).

This paper shows how Wakefield formed an opportunity while concurrently setting quality standards and fishing regulations as the industry coalesced and new competitors entered the emerging king crab market. Wakefield worked together with government agencies to shape government policy and regulations creating the king crab market. This paper brings the profit-seeking entrepreneur into institutional work.

The next section outlines the theoretical orientation.

### 3. Theoretical orientation

There is growing consensus in the field of entrepreneurship that opportunities are not formed in a singular “ah ha” moment but instead the result of both purposeful and emergent action by entrepreneurs (Alvarez and Barney, 2007; Alvarez et al., 2013; Buenstorf, 2007; Dimov, 2010; Garud and Karnoe, 2003; Gregoire et al., 2010; Sarasvathy, 2001). These actions begin an iterative cycle of change between entrepreneurs, their stakeholders, and the uncertain environment that can accumulate over time into what turns into a profitable opportunity. Opportunity creation processes of iterative experimentation, learning from successful or failed actions, and causally ambiguous and non-predictive decision-making, enable deviation from existing patterns within a particular context through the actor's actions and creativity (Alvarez and Barney, 2007; Alvarez et al., 2013; Garud and Karnoe, 2003; Sarasvathy, 2001; Wiltbank et al., 2006). Through experimentation and learning it is possible to construct (Berger and Luckmann, 1967) what was previously unknown, unknowable, and unanticipated (Alvarez and Barney, 2007; Alvarez et al., 2013; Sarasvathy, 2001; Wiltbank et al., 2006).

The actions of profit-seeking entrepreneurs creating opportunities disrupt the context and create uncertainty. These entrepreneurs have to concurrently form an opportunity while defining new institutional norms and regulations that govern the production, distribution, and consumption associated with these new opportunities (Bruton et al., 2010; Santos and Eisenhardt, 2009). During the opportunity creation entrepreneurs may ultimately co-enact new patterns of relationships between objects and humans, a shared set of meaning among stakeholders, an understanding of newly created artifacts, and new patterns of interactions among actors related to the opportunity formation process (Aldrich and Fiol, 1994; Hargadon and Douglas, 2001; Obstfeld, 2012; Santos and Eisenhardt, 2009). As a result of purposeful action these new shared meanings and social relationships may accumulate over time into new institutions (Aldrich and Fiol, 1994; Garud et al., 2002; Jepperson, 1991; Lawrence and Suddaby, 2006).

Institutions in this paper are defined as “regulative, normative, and cultural-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life” (Scott, 2014: 56). This “meaning making” of processes of social construction in which social order is negotiated (DiMaggio, 1991; Hardy and Phillips, 1998). Recently, institutional scholars have turned their attention to understanding how actors through deliberate purposeful practices change and even create institutions (Jepperson, 1991; Lawrence and Suddaby, 2006). These purposive actions aimed at creating institutions have been called “institutional work” by Lawrence and Suddaby (2006).

Institutional work is the “broad category of purposive action aimed at creating, maintaining, and disrupting institutions” (Lawrence and Suddaby, 2006:216). The foundation of this work is in DiMaggio (1988) where he reintroduces agency into institutional theory by introducing the term institutional entrepreneurship and defines it as a way to understand how new institutions arise. While the traditional emphasis in institutional theory focuses on institutional pressures and expectations on actors to conform, leading to stable organizations (Scott, 2001), institutional work and institutional entrepreneurs focus on change and the purposeful practices of actors in the change process (DiMaggio, 1988; Fligstein, 1997; Greenwood and Suddaby, 2006; Maguire et al., 2004).

DiMaggio (1988) describes institutional entrepreneurs as actors who envision changes in institutions as a means of advancing their valued social interests that have been suppressed by current institutional rules and norms. These institutional entrepreneurs are actors who actively seek to change the broader social system through changing political, economic, legal or cultural institutions (Westley and Antadze, 2010). While this extant research on institutional entrepreneurs has focused on agency and institutional change it has had limited focus on how entrepreneurs pursuing wealth creating opportunities contribute to the origins and emergence of new institutions (Hwang and Powell, 2005). These current definitions of institutional entrepreneurs seem removed from the traditional notion of what entrepreneurs do however: enact opportunities in the pursuit of wealth creation (Alvarez and Barney, 2004; Shane and Venkataraman, 2000). Indeed, Hwang and Powell (2005: 182), find considerable irony in the scholarly literature of the usage of the term “institutional entrepreneur.”

In research that focuses on the regulative pillar of institutions (Scott, 2014), the actions of entrepreneurs pursuing wealth creation are even less pronounced. Work on the regulative pillar is often conducted by economists whose focus is on markets or governments rather than individual action (Scott, 2014). Moreover, most of this work continues to be preoccupied with compliance to preexisting regulatory institutions (Ring et al., 2005), is explicitly focused on how government policy influence entrepreneurial behavior (Baumol, 1990; Minniti, 2008), and suggests that standards both enable and constrain entrepreneurial behavior (Garud and Jain, 1996). Little is known about how these regulations come to be in the first place (Peng, 2003). A question not even considered is how entrepreneurs form regulatory institutions such as standards and government policy to intentionally enable their actions while constraining the actions of their emerging competitors. Entrepreneurs forming for profit opportunities are often incentivized to shape new institutional standards so as to gain competitive advantage over other entrants (Hamel and Prahalad, 1994).

Industry evolution typically follows a pattern of progression from industry ferment to coalescence to dominant design (Anderson and Tushman, 2001; Brenner and Tripsas, 2012; Klepper and Graddy, 1990; Utterback and Abernathy, 1975). Entrepreneurs that form their opportunities are key participants of the industry fermentation and enablers of the industry emergence. Industry ferment has been characterized by experimentation (Abernathy and Utterback, 1978) uninformed, unarticulated, and little or no experience with products (Brenner and Tripsas, 2012) little or no agreement about the product's uses or value (Clark, 1985; Garud and Rappa, 1994) and a struggle for legitimacy (Aldrich and Fiol, 1994; Roa, 1994). Industry coalescence occurs as a consensus about a set of standards around the product and its uses emerges (Anderson and Tushman, 2001; Garud et al., 2002; Utterback and Abernathy, 1975) resulting in legitimacy around the product and the actors associated with the product (Aldrich and Fiol, 1994). While most of this work acknowledges the “messiness” during an industry's transition from fermentation to coalescence, the focus is on the industry or market, but little work has focused on the entrepreneurial actor and their specific actions that lead this transition.

In these nascent markets pioneering entrepreneurs are incentivized to change the institutional environment in ways that reinforce their interests (Scott, 1987) and helps them deter and manage entering competitors (Hamel and Prahalad, 1994). The institutional work of these pioneering entrepreneurs is at least two pronged: building a new industry identity and regulatory advocacy (Lawrence and Suddaby, 2006). First, by constructing a new identity that describes the relationships between the actors in the new industry (Lawrence and Suddaby, 2006) pioneering entrepreneurs manage relationships with stakeholders (Pfeffer and Salancik, 1978). This new identity is a collective belief by the participants regarding the practices that constitute a distinct occupation and industry (Lounsbury, 2001). Another aspect of this new identity is the naming of new concepts and practices that allow for further communication and elaboration (Orssato et al., 2002). Finally, these practices also include educating customers on the uses, skills, knowledge, and applications of the product or service (Lounsbury, 2001). Building this relationship often necessitates the need to develop a collective view among potential users that a product or service is of value.

Second, the entrepreneurs often deviate sufficiently from the status quo that forming and exploiting an opportunity may require them to mobilize political and regulatory support (Aldrich and Fiol, 1994, Lawrence and Suddaby, 2006). This institutional work when done by profit-seeking entrepreneurs is often a direct reflection of their interests. The actions and practices often include lobbying for resources, promoting agendas, and proposing new or attacking existing legislation and so forth (Galvin, 2002). Social political processes include convincing critical stakeholders and government officials to accept the new opportunity and resulting emerging industry as “appropriate and right” (Aldrich and Fiol, 1994: 648). Entrepreneurs in this process endeavor to build legitimacy with customer/stakeholders and government officials in order to appropriate potential wealth they are creating (Alvarez and Barney, 2004).

A focus on industries without including the entrepreneur's actions and practices implies that entrepreneurs are considered “cultural dopes” that just go along with what currently exists (Hirsch and Lounsbury, 1997). Industries are human constructs, but building them is not without cost. Entrepreneurs creating and appropriating value engage in an important process of building standards within an industry (Dosi, 1984; Garud et al., 2002; Van de Ven and Garud, 1994). Many entrepreneurship and institutional scholars acknowledge that the process of forming wealth creating opportunities includes educating stakeholders, setting standards, and building regulations (Aldrich and Fiol, 1994; Baker and Nelson, 2005; Garud et al., 2002; Greenwood et al., 2005; Navis and Glynn, 2010; Obstfeld, 2012; Santos and Eisenhardt, 2009). However, little is known about the role of entrepreneurial action and practice in forming new stakeholder identities and the formation of new standards and regulations. Even less is known about how these entrepreneurs co-create opportunities and institutions simultaneously to benefit themselves relative to their competition. By examining the actions and practices of the entrepreneur forming a wealth creating opportunity, greater understanding can be obtained as to why they might want to engage in the work of institutional formation (Lawrence and Suddaby, 2006; Tsoukas, 1989).

The reason in offering these observations is to draw attention to the intertwined nature of opportunity and industry standards formation. This paper examines the entrepreneurial actions of Wakefield Seafoods' formation of the king crab opportunity simultaneously with standards for the king crab industry.

## 4. Methods

### 4.1. Setting

When examining the origins of co-emerging opportunities and institutions, scholars can gain great richness from examining the context in which the entrepreneurial process unfolds using a historical case study (Bresman, 2013; Parmigiani and Howard-Grenville, 2011; Tsoukas, 1989; Van de Ven, 2007). Opportunities and institutions emerge over time, not in a static moment, and the examination of these processes of emergence are particularly amenable to longitudinal historical case data (Bresman, 2013; Parmigiani and Howard-Grenville, 2011; Siggelkow, 2007). Using this method, the researchers were able to take a historical perspective of the sequencing of events that described how the opportunity evolved over time (Van de Ven, 2007), and elaborate on the emergent theory of co-creation processes by refining existing categories and relationships (Lee et al., 1999; Locke, 2001; Tsoukas, 1989).

A single in-depth case study can represent a critical case in accommodating existing theory that has articulated a set of propositions, as well as the context within which the propositions are believed to be true (Bansal and Roth, 2000; Eisenhardt and Graebner, 2007; Yin, 2009), confirm, challenge or extend theory, and determine whether a theory's propositions are valid or whether there is a relevant alternative explanation (Yin, 2009: 28). The theory-building process occurs through recursive cycling among case data, emerging theory, and existing literature (Baker and Nelson, 2005; Bresman, 2013; Eisenhardt and Graebner, 2007). The strength of theory building through this approach is helpful to an emerging theory of process by bridging rich qualitative evidence in a manner to accommodate existing theory work on opportunities and institutions.

The paper uses propositions regarding the processes used to form institutions during the opportunity creation process derived from previous theoretical work (Eisenhardt and Graebner, 2007), based on the creation of standards by profit-seeking entrepreneurs that guide the activities and behavior of subsequent entrepreneurs (Hwang and Powell, 2005). To elaborate on these processes, the paper uses the extreme case of the king crab opportunity (Eisenhardt, 1989; Pettigrew, 1990). This case is extreme because it is an example of a first-mover instance of a profitable commercialized product in which the processes that are being examined are “transparently observable” (Eisenhardt, 1989: 537). Extreme cases facilitate theory building since the dynamics being examined tend to be more visible than they might be in research methodologies (Pratt et al., 2006). In this case, prior to entrepreneur Lowell Wakefield and his team's actions, the king crab industry in the U.S. as it is known today did not exist. In fact, flash-frozen king crabmeat was not manufactured, sold, or consumed prior to Wakefield's enactment of the opportunity. Neither implicit demand nor supply of



this product was established. The enactment of the king crab opportunity in the U.S. acts as an extreme case in which to observe the co-formation of both opportunity and institutions under natural conditions and provides insight into the contingencies surrounding co-creation process efficacy.

#### 4.2. Data sources

Wakefield Seafoods was founded for the primary purpose of catching and selling king crab in the U.S. market. Wakefield Seafoods is historically significant in the king crab industry, relevant to the post-World War II (WWII) economic stimulation of Alaska, and politically germane to the U.S.' legal rights regarding international waters. Wakefield Seafoods provides a useful setting to study opportunity formation and exploitation due to the wealth of data available, summarized in Table 1. Wakefield Seafoods received considerable press attention, generating contextual data. Data sources for this study are (1) archived interviews with key members of the earliest Wakefield Seafoods' team conducted by family members in an effort to capture the origins of the company, (2) transcripts of the minutes of annual corporate meetings with Wakefield Seafoods' stockholders, (3) minutes of other Wakefield Seafoods' shareholder meetings, (4) personal documents of several key members of the Wakefield Seafoods' management team, and (5) newspapers and periodical articles.<sup>3</sup> Additionally, eight hours of iterative interviews were conducted with Mansel Blackford, Captain Blackford's son and the family member that made the original interviews available for this paper, to confirm data interpretations.

Interviews with key members of Wakefield Seafoods' team include Lowell Wakefield (founder and CEO), William Blackford (ship's captain, 1945–1952), Walter Jim Butler, and Philip Padelford. These interviews were semi-structured and lasted between thirty minutes to several hours each. Lowell Wakefield, in particular, was interviewed more than twelve hours over four days in June 1974, August 1975 and April 1977.<sup>4</sup> Topics centered on the startup of Wakefield Seafoods and the early days of the king crab industry. These interviews were supplemented with those conducted in 1965 with principal actors in the king crab market, by a reporter at *Pacific Fishman*, a fishing industry trade journal (see Table 1). In total, 18 interviews from 1965 to 1977 were collected and transcribed. Principal actors are listed in Table 2.

Data sources also include transcripts from Wakefield Seafoods' annual meetings and other shareholder meeting minutes from 1946 through 1968. These minutes provided detailed and rather candid information regarding the financial and operational status of the firm. Other data obtained included private documents and correspondence of Philip Padelford and Lowell Wakefield, as well as the records of Moss Adams LLP, the law firm that represented Wakefield Seafoods. The private documents were written between 1936 and 1999.

Additional archival data sources include articles and reports from 15 local newspapers, national industry journals, and economic reviews. Governmental reports and academic journals relating to the seafood industry supplement these data with a nuanced understanding of the contemporaneous social, regulatory and technological environment. Using data contemporary with opportunity processes helps to surmount concerns about data bias that can occur in historical analyses and single case studies (Hargadon and Douglas, 2001). Multiple sources of data allow for data triangulation, enabling the researcher to 'zero-in' on the findings by using instruments with different weaknesses and strengths (Jick, 1979; Yin, 2009). For example, data are used from the interview transcripts of Wakefield and the management team, stockholder meeting minutes, and the firm's legal records regarding investors, bankers, suppliers, and buyers, resulting in the triangulation of the "facts" about Wakefield Seafoods' financing processes. Utilizing different data types and sources increases result validity (Singleton and Straits, 2005), since the "multiple sources of evidence essentially provide multiple measures of the same phenomenon" (Yin, 2009: 116–117).

#### 4.3. Analytic strategy

This study was structured using an inductive methodology of process data examination. First the data was organized following the tradition of an in-depth historical case study described by Yin (2009) and used by Burgelman (1994), and Tripsas and Gavetti (2000). The authors organized the data and events into chronological order (Miles and Huberman, 1994), which avoided excessive data reduction and allowed the authors to identify interactions and relationships among the different types of data examined (Miles and Huberman, 1994). Table 3 provides a summary of major events in the development of the king crab opportunity. Moreover, organizing the data chronologically allowed the researchers to specify events and examine interactions among primary actors and link their actions to other data, thus establishing context (Tsoukas, 1989; Van de Ven, 2007; Yin, 2009).

Next, the authors theoretically oriented the analysis by using the assumptions about opportunities that guide entrepreneurial action (Suddaby, 2006; Yin, 2009). Assumptions about the nature of the opportunity, the entrepreneur, and the knowledge context (Alvarez and Barney, 2007; Sarasvathy, 2001; Shane, 2003; Wiltbank et al., 2006) framed theoretical expectations about the co-creation iterative process forming an opportunity while building an institution. Using these assumptions and associated processes to organize the case and structure the data, ex ante, prevents temporal distinctions based on knowledge about the data (Barley, 1986).<sup>5</sup>

Working recursively between the case and the theory being developed, the authors documented patterns in the data, constructed further theoretical explanations, and used the data to challenge and extend theory (Locke, 2001). During the iterative process of

<sup>3</sup> Wakefield Seafoods, Inc. was originally incorporated under the name Deep Sea Trawlers in the state of Washington in October 1945.

<sup>4</sup> These interviews were conducted and tape recorded by Dr. Mansel Blackford (son of William Blackford), Professor of History at the Ohio State University.

<sup>5</sup> Case studies are generalizable to theoretical propositions and thus analytically generalizable (Yin, 2009).

**Table 1**

Data sources.

<i>Interviews</i>	
Name	Role
William Blackford (5)	Captain of <i>Deep Sea</i>
Walter Jim Butler (1)	Wakefield Seafoods original management
Addison Fenton (1)	Investment counselor
Edward Gelsthorpe (1)	President Hunt-Wesson
Ernie Glidden (1)	Wakefield Seafoods management team
Duffey Kennedy (1)	Investment counselor
Takashi Miyahara (1)	Wakefield Seafoods superintendent
Philip Padelford (1)	Wakefield Seafoods original management
Kenneth Thorson (1)	Wakefield Seafoods employee
Lowell Wakefield (4)	Wakefield Seafoods founder and CEO
Above interviews conducted by Dr. Mansel Blackford, business historian, Ohio State University, from 1974 to 1977. The number of interviews is indicated in the parentheses following the name.	
Peter Deveau	Founder of competing firm, King Crab Inc.
Arne Hansen	Captain— <i>Sea Quail</i>
Richard Pace	Wakefield Seafoods quality control officer after 1962
Howard Wakefield	Lowell Wakefield's brother
Lowell Wakefield	Wakefield Seafoods founder and CEO
Above interviews conducted by <i>Pacific Fisherman</i> , 1965	
Dr. Mansel Blackford	Professor Emeritus and business historian, Ohio State University; son of William Blackford
Above interview(s) conducted by the authors to confirm their interpretation of the archival data; interviews conducted from 2009 to 2011, totaling 8 h.	
<i>Archival data sources</i>	
Years	Source
<i>Manuscripts and private papers</i>	
1946–1968	Moss Adams LLP Papers
1936–1999	Philip Padelford Papers
1967–1972	Lowell Wakefield Papers
1946–1968	Wakefield Seafoods' Annual and Special Meeting Minutes
2008	Norwegian-Americans in the King Crab Fishery, Dissertation, Malim
<i>Newspapers and periodicals</i>	
1990	<i>Alaska Business Monthly</i>
1959–1975	<i>Anchorage Daily Times</i>
1942–1972	<i>Commercial Fisheries Review</i>
1945–1980	<i>Fisherman's News</i>
1942	<i>Fishery Market News</i>
1959–1965	<i>Juneau Alaska Empire</i>
1959	<i>Ketchikan Daily News</i>
1955–1965	<i>Kodiak Mirror</i>
1947	<i>Marine Digest</i>
2009	<i>Marine Fisheries Review</i>
1954–1970	<i>National Fisherman</i>
1946–1967	<i>Pacific Fisherman</i>
1977	<i>Pacific Packers Report</i>
1965	<i>Review of Business and Economic Conditions</i>
1951	<i>Seattle Times</i>
1947	<i>Time Magazine</i> "Frozen King."
<i>Government archival data sources</i>	
1952–1963	Alaska Fisheries annual summary and board reports
1971–1974	Alaska Department of Fish and Game annual report and news
1992	Alaska Department of Fish and Game report, 4 K92-27
1941	U.S. Department of the Interior report
1950–1954	U.S. Department of Fish and Wildlife Service reports, including <i>Laws and Regulations for Commercial Fisheries of Alaska</i>
1964	U.S. Department of State, Bulletin and <i>Treaties</i>

examining the data, returning to the theory, and then returning to the data, the understanding of opportunity processes became more precise (Alvarez et al., 2014).

## 5. The beginning of the king crab industry

### 5.1. King crab fishing

The Japanese began fishing for king crabs in the Sea of Japan in 1892 and later moved into the Bering Sea, where they were joined by fishermen from the Soviet Union in 1928. At this time, the few fishermen who caught king crabs stored the product by canning.

**Table 2**

Principal actors in the nascent king crab industry.

Key people	Relationship to king crab industry
<i>Member of Wakefield Seafoods</i>	
William Blackford	Original Wakefield Seafoods' management team member; Captain of the <i>Deep Sea</i> (1945–1952)
Walter Jim Butler	Original Wakefield Seafoods' management team member
Erie Glidden	Wakefield Seafoods' management team
Jim Goodrich	Original Wakefield Seafoods' management team member
Addison Fenton	Wakefield's investment counselor (1960s)
Ralph Jones	Wakefield spokesperson
Duffey Kennedy	Wakefield's investment counselor (1960s)
Wayne Luders	Treasurer Wakefield Seafoods
Takashi Miyahara	Wakefield Seafoods' general plant superintendent/quality control mgr
Robert Pace	Wakefield Seafoods' quality control manager after 1962
Philip Padelford	Original Wakefield Seafoods' management team member
Louis Schreiber	Original Wakefield Seafoods' management team member
Kenneth Thorson	Biological research and quality control officer, 1960s
Howard Wakefield	Lowell Wakefield's brother
Lowell Wakefield	Wakefield Seafoods' founder and CEO
<i>The competition</i>	
Fred Deveau	Founder of Island Seafoods
Peter Deveau	Founder of Island Seafoods, General Manager of King Crab, Inc., mayor of Kodiak, Alaska, and state legislator (1958–1962)
Arne Hansen	Captain of the <i>Sea Quail</i>
Robert Reesoff	Superintendent of King Crab, Inc.
William Ritter	President of Pan Alaska Fisheries
<i>The politicians</i>	
Philip A. Hart	Senator from Michigan, personal friend of Lowell Wakefield (1960s)
Herbert Hilscher	Lobbyist for Wakefield Seafoods
Alfred Owen	Senator of Uganik Bay, Alaska (1960s)
Daniel Roper	U.S. Secretary of Commerce to President Franklin Roosevelt
William Egan	Governor of Alaska
<i>Ancillary players</i>	
Jose Franco	Well-known Washington fisherman (1940s)
Edward Gelsthorpe	President of Hunt-Wesson (merger candidate for Wakefield Seafoods)
John Hauberg	Friend of Philip Padelford, connected to Weyerhaeuser family (investors)
Boris Kanake	Former Russian trawler captain
Lynn Miller	President of Nordby Supply (supplier of Wakefield Seafoods)
Norman Wilimovsky	Marine biologist
George Wrisley	President of Wrisley Soap (investor in Wakefield Seafoods)

However this method resulted in low quality and a taste that was unacceptable in the U.S. By the 1930s, the Japanese and the Soviets had withdrawn from the Bering Sea.

Fishermen in the U.S. did not get into the king crab business to a great extent prior to World War II, with the exception of the Pacific Fishing and Trading Company in 1938. This company purchased king crabs from local fishermen, and canned the king crabs on one of their factory ships. While successful in canning efforts that year, they were not financially profitable. Indeed, the king crab industry was not profitable or viable at this time for U.S. fisheries due to numerous economic and technical problems.<sup>6</sup> Some of these problems included dominance of the salmon industry, competition with the Japanese for a limited U.S. market, the lack of knowledge of crab canning methods, problems with quality control, and ignorance about the migration patterns and population dynamics of the king crabs.<sup>7</sup>

Traditional means of fishing were not appropriate for the harsh conditions of the Bering Sea or the migratory nature of the king crabs. King crabs are large spider-like crustaceans that live in the cold Northern waters of the Pacific Ocean, mainly in the Bering Sea between Alaska and Russia. A male king crab can grow to weigh over 20 pounds with a leg span of five feet. King crab fishing takes place mainly in the winter, during the coldest and roughest months of the year. Unlike many traditional fishing methods, the king crabs are typically located in tumultuous waters where winds of up to 60 to 70 kn and 30 to 40 foot sea waves were possible, making their harvest extremely difficult and dangerous. King crabs can migrate up to 100 miles across the ocean floor to shallower waters in which to mate. During this migration, it is difficult to know the location and trajectory of schools of crabs, which makes catching them challenging.

All of these difficulties coupled with limited demand for canned king crabmeat in the U.S. made this an unfavorable industry for U.S. fishermen. Indeed, king crabmeat was so unknown to the U.S. consumer that when Secretary of Commerce Daniel Roper, one of the best and most experienced administrators in Franklin D. Roosevelt's cabinet, suggested the possibility of establishing a king crab fishery to President Roosevelt, the president practically laughed Secretary Roper out of the cabinet room (Blackford, 1979;

<sup>6</sup> *Pacific Fisherman*, 63 (June, 1965), 1; "The Alaska King Crab Industry," *Review of Business and Economic Conditions*, November 1965, 2–3; transcript of an interview with Lowell Wakefield by a reporter for *Pacific Fisherman*, February 9, 1965.

<sup>7</sup> "The Alaska King Crab Industry," *Review of Business and Economic Conditions*, November 1965, 3; Interview with Lowell Wakefield, June 22, 1974.

**Table 3**

Timeline of events affecting development of king crab industry.

Year	Events
1892	Japanese begin fishing for king crabs in the Sea of Japan, later move to Bering Sea
1928	Russians begin fishing for king crabs in Bering Sea
1930s	Japanese and Russians withdraw from Bering Sea
1938	Early, unsuccessful efforts in king crab fishing by Pacific Fishing and Trading Co. Lowell Wakefield returns to Alaska to join family in herring business
1940	U.S. government conducts research directly in front of Wakefield fisheries regarding viability of king crab as a food product
1945	Lowell Wakefield founds Deep Sea Trawlers (later re-named Wakefield Seafoods)
1946	Wakefield Seafoods builds and launches experimental boat <i>Deep Sea</i>
1949	<i>Deep Sea</i> put up a pack of 404,000 pounds in 1949, more than twice as much as the previous year; turning point for Wakefield Seafoods and the industry
1950s	Wakefield Seafoods' officers worked with Alaskan territorial, Washington State and federal government officials on quality control programs
1950	<i>Deep Sea</i> 's chief engineer invents "crab shaker" Wakefield Seafoods fits <i>Deep Sea</i> with Sperry Mark II, invents "radar fishing"
	Alaska Fish and Wildlife Service (AFWS) set first rules for crab conservation: minimum size for male crabs, return of all female crabs to the sea, minimum mesh size for trawl, tangle nets outlawed
1952	Canada, U.S. and Japan establish International North Pacific Fisheries Commission (INPFC) to study and regulate conservation of fisheries in North Pacific
1953	Japanese fishermen return to Bering Sea Lowell Wakefield travels to Tokyo to meet with Japanese fishing companies on behalf of American fishermen
1954	Modern crab pots appear on scene
1956	Russian fishermen return to Bering Sea
1956–1957	AFWS begin to seriously study link between fishing intensity and king crab yields; Alaska Fisheries Board expands own investigations on king crab habits Lowell Wakefield serves as industry advisor to American delegation to the INPFC, uses the agency's services to help clear up gear conflicts with Japanese
1957	King crab catches peak
1958	King crab catches fall alarmingly despite intensified fishing efforts; localized scarcities of crabs appear, particularly in Cook Inlet and around Kodiak Island
	U.N. continental shelf convention established during conference on the "law of the sea", affirming nations' control over own waters
1959	King crab outstripped Dungeness in American crab canning for the first time
Late 1950s/early 1960s	Kenneth Thorson discusses possible legislative actions with members of the state senate and assembly Debate rages between proponents of trawling methods and use of crab pots; ADFG bans trawling and limits number of pots per boat to 30 in the prime fishing regions
1963	Value of Alaska's king crab production exceeds that of halibut fishery, U.S. market for king crab firmly established King Crab Institute created, headed by William Ritter
	New markets were being developed overseas in Denmark, France and Great Britain
1963s–1964s	200 Russian vessels wreak havoc with U.S. crab fishermen in Gulf of Alaska, destroying crab pots and cleaning out fishing grounds; U.S. fishermen respond by arming boats with antitank guns and threatening to shoot it out
1964	ADFG reverses decision on the trawling / pot use debate, as limits on pots per boat determined to be difficult to enforce and overfishing was still occurring Thirteen major competitors running twenty-five shore plants in Alaska
	U.S. enters into negotiations with Japan over king crab fishing rights
1964–1965	U.S. enters into negotiations with Russia over king crab fishing rights; Lowell Wakefield, Takashi Miyahara and William Ritter are industry advisors to U.S. delegation
1965	Wakefield Seafoods' officers draft Alaska King Crab Marketing and Quality Control bill, known in the industry as "The Wakefield Bill"; Senator Alfred Owen introduces bill in mid-February, signed into law in the spring
1966	Twenty processors vying for Alaska's king crab catch
1966–1967	Alaska King Crab Marketing and Quality Control board cooperates with the Alaska Department of Fish and Game (ADFG) and National Fisheries Institute to devise uniform processing and packing standards for crabmeat
1967	Twenty-eight processors in Kodiak alone
1968	Wakefield Seafoods merges with Hunt-Wesson, a division of Norton Simon
Late 1960s	Lowell Wakefield travels to Washington D.C. to testify in favor of bills extending federal regulation over the quality of seafood products
1970	ADFG adopts quota system, fixing a new quota each year; divides Alaska's king crab fishing grounds into six specific geographical areas
1974–1976	Lowell Wakefield continues in role as an industry advisor to the INPFC; participates in the U.N. "Law of the Sea" conferences

Roper, 1941). It wasn't until Lowell Wakefield started his company Wakefield Seafoods—and through a series of experimentation and innovation that solved many of these problems, thus making king crab harvesting a viable enterprise—that a market for king crab was created.

### 5.2. Lowell Wakefield

Lowell Wakefield, founder of Wakefield Seafoods, was the son of a herring fisherman. After obtaining his undergraduate degree at the University of Washington and pursuing graduate studies in anthropology at Columbia University, he worked for the International Labor Defense settling coal miner disputes in Harlan County, Kentucky. In 1938, after becoming weary of the Kentucky coal mining scenery, Wakefield wanted to return home to the beauty of Alaska. Wakefield returned to Alaska to join his family in the herring



business and observed the U.S. government conducting research directly in front of his family's fisheries regarding the viability of king crab as a food product in 1940. He was well aware that the research ended with mixed results: rich supply of king crab but no demand for it as a food product. Nonetheless Wakefield decided to start his own company harvesting king crab. Wakefield had “great confidence” that there was abundant supply of king crab, he also considered the salmon and halibut fishing industries to be “overcrowded” and thought that within a few years herring would be “practically fished out.”<sup>8</sup>

Wakefield gathered an eclectic management team from a network of friends and acquaintances, which while aware that commercial king crab harvesting was a very speculative venture, were convinced “that [Wakefield's] plans had all of the elements to fly.”<sup>9</sup> The founding team was primarily men in their thirties whose lives had been disrupted by WWII, who found themselves at loose ends at its conclusion, without jobs, careers, or homes. As such, they were flexible and transitional. Many had served in the U.S. Navy gaining a wide range of skills and had become, as several later put it, “water-oriented.” All were well-educated and possessed funds to invest. The team members also had general knowledge of Alaska, the fisheries industry, or the Wakefield family.

### 5.3. Technological innovations

Wakefield overcame the inappropriate traditional means of fishing in the harsh conditions of the Bering Sea through an iterative process of technological innovation. He designed an experimental boat, the *Deep Sea*. He applied technology previously only used by the Navy for military purposes to his commercial venture, consulted experts from other areas to design new equipment not previously known to the fishing industry, innovated new fishing methods, and created entirely new employee skills to overcome the unique problems he encountered. Wakefield Seafoods adopted LORAN, a navigational aid developed by Sperry Gyroscope which helped the Navy vessels' officers determine their location by picking up radio signals transmitted from Coast Guard stations which on-board equipment can then use to pinpoint a ship's location. (See Table 4 for a more detailed description of technology innovations in the king crab industry). This allowed Wakefield to navigate the Bering Sea more precisely, going further out to sea than had previously been possible for the ordinary fisherman, and therefore fish for king crabs for longer time periods and in more remote areas. They developed what they termed “radar fishing,” fitting the *Deep Sea* with a Sperry Mark II radar system in 1950. In addition to improving navigation, the system was applied in a novel way to tracking king crabs. Together with sea maps, the *Deep Sea's* captain could systematically mark the boundaries of an entire school of crabs and focus harvesting efforts. Radar fishing enabled the *Deep Sea* to increase the catch 35 to 50%.

Another set of innovations involved the cooking and processing of the king crabs. Wakefield decided to use the *Deep Sea* (Wakefield Seafoods' experimental boat) as a floating factory, and butcher, process, and cook the crabs aboard ship to save time. In 1950 the *Deep Sea's* chief engineer invented the “crab shaker,” which enabled one person to process three to five times as much meat than by hand.<sup>10</sup>

### 5.4. Success and competition

Despite some turbulent beginning years, 1949 was a major turning point for both Wakefield Seafoods and the nascent king crab industry. Partly because of their good fortune in finding large schools of crabs and partly because they solved technical problems in processing the crabs, the men of Wakefield Seafoods' boat the *Deep Sea* put up a pack of 404,000 pounds in 1949, more than twice as much as the previous year.<sup>11</sup> In a letter to the stockholders in December, Wakefield concluded that “the year proves that we are on the right track...we will continue to gain.”<sup>12</sup>

Wakefield's predictions were borne out, for the company emerged as a viable concern in the early 1950s. As Wakefield Seafoods grew in fortune, so did the industry. King crab outstripped Dungeness in American crab canning for the first time in 1959. Four years later as the demand for Dungeness crab continued to rapidly decline, about 10 times as much king crab as Dungeness crab that was canned. By 1963 the value of Alaska's king crab production exceeded that of even its long established halibut fishery.<sup>13</sup> In 1980, the king crab industry peaked and that year Alaskan fisheries produced 200 million pounds of crab.<sup>14</sup>

In the summer of 1963, many of the large and small king crab companies joined ranks to form the King Crab Institute headed by Pan Alaska Fisheries' President, William Ritter. The organization was established primarily to create demand for king crab products. The institute hired the Pacific National Advertising Agency to place stories about the king crab business through various news media, sent crab recipes to food publications, and underwrote a direct mailing campaign to chain grocery stores, thus developing the king crab industry into one of the Pacific Coast's leading fisheries.<sup>15</sup>

As the industry formed, through both informal and formal institutions, it developed into a traditional oligopoly with both large and small players. Wakefield Seafoods, however, with its first mover advantages and high quality standards, remained at the top of the industry. In fact, Edward Gelsthorpe, the president of Hunt-Wesson, considered Wakefield Seafoods' crab as “a Tiffany product.”<sup>16</sup>

<sup>8</sup> Wakefield interview, June 22, 1974.

<sup>9</sup> Interview with Philip Padelford, July 29, 1974.

<sup>10</sup> Interview with Lowell Wakefield, February 9, 1965.

<sup>11</sup> *Pacific Fisherman*, 48 (January 1950), 259.

<sup>12</sup> Wakefield to stockholders, Wakefield Seafoods, late December 1949.

<sup>13</sup> *Pacific Fisherman*, 58 (January 25, 1960), 221, 62 (January 25, 1964), 142; U.S. Fish and Wildlife Service, *Alaska Fisheries Annual Summary* (Washington, D.C.), 1963, 1.

<sup>14</sup> Commercial Fisheries from Alaska Department of Fish and Game.

<sup>15</sup> Interview with William Ritter, August 15, 1974; *Kodiak Mirror*, June 21, 1963; *Pacific Fisherman*, 63 (July 1965), 17.

<sup>16</sup> Interview with Edward Gelsthorpe, December 15, 1975.

**Table 4**  
Equipment innovations and technologies by Wakefield Seafoods.

Crab pot	Large metal cage used to catch king crab, weighing approximately 800 pounds, 3 ft. deep and 6 ft. square. The square design was more successful than earlier versions because it is less susceptible to tidal movement. Experimentation with crab pots began 1954, before which tangle nets were the norm.
Crab shaker	A device that used a mixture of water and compressed air to blow the meat out of the long leg shells; invented by the <i>Deep Sea's</i> chief engineer in 1950.
<i>Deep Sea</i>	Wakefield Seafoods' experimental boat; tons of concrete and steel boiler punchings were poured into the vessel's holds for increased stability in tumultuous seas.
Hydraulic deck winch	The winch on the <i>Deep Sea</i> was powered by a 100-hp General Motors diesel engine, instead of being cranked by hand in accordance with the prior level of trawling technology. The winch improved conventional trawling practices.
LORAN	Loran: 1940–1945 acronym for Long-Range Aid to Navigation; a system of long-range navigation whereby the latitude and longitude of a ship or airplane are determined from the time displacement between radio signals from two or more fixed transmitters. The Loran used on the <i>Deep Sea</i> was developed by the Sperry Gyroscope Co. LORAN-C was originally developed to provide radio navigation service for U.S. coastal waters and was later expanded to include complete coverage of the continental U.S. as well as most of Alaska. LORAN-C provides better than 0.25 nautical mile absolute accuracy for suitably equipped users.
"Radar Fishing"	Radar: 1941, acronym for Radio Detecting And Ranging. A device for determining the presence and location of an object by measuring the time for the echo of a radio wave to return from it and the direction from which it returns. The Sperry Mark II radar system was invented by Elmer Ambrose Sperry (1860–1930). In 1908 he engineered and patented a gyroscope that would replace the magnetic compass, a faulty and unreliable form of navigation used on ships. His gyrocompass was first installed on the U.S. battleship <i>Delaware</i> in 1911. In 1950 the <i>Deep Sea</i> was fitted with a Sperry Mark II radar system, and the ship's officers constructed radar reflecting buoys from 50-gallon oil drums and stainless steel mesh projecting 10 ft above the water. When they located a "hot spot" (a school of king crabs) during trawling, they dropped a buoy to mark it. Radar could pick up these buoys in any weather.

After the market developed through Wakefield's actions, there was insatiable demand for the king crab product and new players entered the industry. Though Wakefield Seafoods was still the most prominent U.S. firm, by 1964 there were thirteen major competitors running twenty-five shore plants in Alaska. By 1966, approximately twenty processors were vying with each other for Alaska's king crab catch, and by 1967 twenty-eight were competing for the catch in the city of Kodiak alone. Even the Japanese and Russian fishing fleets had returned to the Bering Sea. By 1963, the U.S. market for king crab had been firmly established, and new markets were being developed overseas in Denmark, France and Great Britain.

As competition intensified in the 1960s, Wakefield and his team got more heavily involved in political issues surrounding the nascent king crab industry. Their efforts revolved around three closely related issues: quality control regulation, fishing regulations in Alaskan waters, and international fishing agreements between the U.S. and other countries, particularly Japan and Russia.

### 5.5. Quality control regulation

At a time when other fishing industries followed only rudimentary quality control procedures, Wakefield Seafoods took considerable care to maintain high quality. The processing room of the *Deep Sea* gleamed in stainless steel, and the processing crew spent several hours each day scrubbing it down with clean seawater and a chlorine solution. The crabmeat was put up free of tendons, an accomplishment unusual for the time. While these efforts reflected a genuine pride on the part of management in producing the best crab pack available for customers, the emphasis on quality control also played an integral role in the company's marketing strategy. As Wakefield explained, by putting up a superb product the company had something to sell that was new to the world of fishing. Realizing that more widely spread efforts were needed, Wakefield Seafoods moved from private quality control efforts to sponsoring mandatory quality control legislation in Juneau.

Beginning as early as the 1950s, Wakefield Seafoods' officers worked with Alaskan territorial, Washington State and federal government officials on quality control programs. In the late 1950s to early 1960s Kenneth Thorson, firm's biological research and quality control officer, discussed possible legislative actions with members of the state senate and assembly.<sup>17</sup>

In 1965, Wakefield Seafoods' officers drafted what quickly became known as Alaska King Crab Marketing and Quality Control bill. This bill was often referred to in the industry as "The Wakefield Bill."<sup>18</sup> As Wakefield argued at the time, the bill would enable processors to coordinate their efforts, and thus "help the industry help itself." It was the quality control functions of the board that was stressed the most.<sup>19</sup> The bill was introduced by Senator Alfred Owen in mid-February, 1965, who kept close watch over the bill's progress, feeling that king crab had the potential to become "Alaska's most valuable salt water economy."<sup>20</sup> Governor William Egan, was also a proponent, noted that "the operation and success of this board" would be watched closely by other food processors in Alaska and believed that as the board "improves the quality and marketing of king crab...processors of other types of seafood will be interested in establishing similar boards."<sup>21</sup> Wakefield himself believed the passage of the bill to be "one of the most important events in the history of the fishing industry in this state."<sup>22</sup>

<sup>17</sup> Interview with Kenneth Thorson, August 13, 1974.

<sup>18</sup> *Anchorage Daily Times*, August 27, 1965; *Pacific Fisherman*, 63 (June, 1975), 40–41.

<sup>19</sup> Interview with Lowell Wakefield, June 24, 1974.

<sup>20</sup> *Anchorage Daily Times*, February 20, 1965; *Juneau Alaska Empire*, February 18, 1965.

<sup>21</sup> *Anchorage Daily Times*, February 20, 1965; *Juneau Alaska Empire*, February 18, 1965.

<sup>22</sup> Wakefield to directors, Wakefield Seafoods, September 1, 1965. Moss, Adams Papers.

Wakefield himself spearheaded the industry's drive for the bill, and spent a week in Juneau in mid-February, 1965 arguing that the proposal would directly stimulate Alaska's economic growth through new firms and jobs. Wakefield Seafoods also employed Herbert Hilscher as a registered lobbyist at the state capital at Senator Owen's suggestion. The bill was signed into law in the spring of 1965, establishing a six-man board of crab processors, with the state commissioner of fish and game acting as an additional ex officio member. The expenses of the board were met by a special tax levied on all king crab processing companies. This board was responsible for fixing uniform quality standards for the industry, and once those standards were agreed upon and promulgated, the board was empowered to close any plant violating them.<sup>23</sup>

The bill had the support of other major players in the industry, namely William Ritter, president of Pan Alaska Fisheries, and Peter Deveau, president of King Crab Inc.<sup>24</sup> Once the bill had been signed into law, Lowell Wakefield and Peter Deveau were named to the board.<sup>25</sup> After Lowell Wakefield had served his term, his brother Howard Wakefield took his seat. Throughout 1966 and 1967 the board cooperated with the Alaska Department of Fish and Game and the National Fisheries Institute in devising uniform standards for processing and packing crabmeat.

### 5.6. Government regulation of quality

At the same time Wakefield was working on the Alaskan bill, he was also making legislation efforts in Washington, D.C. In the late 1960s, Wakefield traveled to Washington D.C. to testify in favor of bills extending federal regulation over the quality of seafood products. Sponsored primarily by Senator Philip A. Hart of Michigan, whom Wakefield described as "a personal friend," Wakefield hoped the measures would "do for the fishing industry what had already been done for meat and poultry."<sup>26</sup> The meat and poultry industries initially suffered from low quality issues until protocols and standards were established to protect the consumer, and Wakefield hoped to avoid these issues in the newly developing king crab industry.

Wakefield Seafoods, in the creation of the king crab industry, generated so much value that they could not capture all the value themselves. Some of this value was captured by smaller players entering the king crab industries. These smaller players were derisively known as "beach boilers." The beach boilers would often hastily select plant sites and quickly construct buildings. Lacking adequate capital and networks, beach boilers "came and went" with the seasons.<sup>27</sup> These beach boilers were cause for concern and motivated Wakefield to seek more federal legislation to assure quality control.

Beyond being involved in the instigation of quality control regulations for the industry, however, Wakefield Seafoods also quickly became embroiled in two closely related disputes: regulations governing fishing within Alaska's territorial waters (within three miles of land) and international fishing agreements for the high seas between the U.S., the Soviet Union, and Japan. The next section discusses the development of regulations for fishing limits in Alaskan waters.

### 5.7. Fishing regulations in Alaskan waters

Wakefield initiated many of the regulations that ultimately formalized the industry. The need for such regulations was also initiated by Wakefield and his company, however; through the process of opportunity formation Wakefield Seafoods developed innovations and technological adaptations such as the adoption of Loran and the invention of "radar fishing" and the "crab shaker" that allowed Wakefield Seafoods to improve people's ability to catch, process and store king crabs faster and more efficiently than had previously been possible. As more companies entered the industry in order to meet increasing demand for the king crab product, these improved processes and technologies that Wakefield Seafoods instigated were adopted by others. Wakefield began to fear that demand would outstrip supply, and entered the political and regulatory arenas to protect the crab supply.

Wakefield grew concerned that all the fishing activity of these new players would result in the king crabs being fished out in Alaskan waters, and quickly became involved in disputes regarding the governance of fishing within Alaska's territorial waters (within three miles of land). Though in the beginning scientific evidence of such overfishing was mixed, Wakefield still remonstrated the Fish and Wildlife Service for failing to prosecute pot fishermen for what he believed was the wanton and needless destruction of crabs.<sup>28</sup> At issue were the types of fishing gear and the total number of boats allowed to fish for crabs.

Established traditional fishing companies (i.e. salmon) were seeking regulations within Alaskan territorial waters to restrict the types and amount of fishing gear boats could employ. Wakefield viewed this effort as unenforceable and argued instead for limited entry regulations to restrict the total number of vessels fishing for crabs as a way to curb overfishing. Regulations were developed to address this dispute. In 1950, the Fish and Wildlife Service set the first rules for taking king crabs aimed at conserving crab resources: a minimum size for male crabs, requiring that all female crabs must be returned to the sea, and fixing a minimum mesh size for trawl nets to insure the escape of young crabs.<sup>29</sup> Fishing with tangle nets was also outlawed.

Ralph Jones, speaking for Wakefield Seafoods, further maintained that most of the needless waste of king crabs occurred in transporting the live crabs to processing plants. Wakefield himself attacked the Fish and Wildlife Service for failing to prosecute

<sup>23</sup> *Pacific Fisherman*, 63 (June 1965) 40–41.

<sup>24</sup> *Juneau Alaska Empire*, February 18, March 11, April 1, 1965.

<sup>25</sup> *Anchorage Daily Times*, August 27, October 8, 1965; *Juneau Alaska Empire*, October 6, 1965; *Pacific Fisherman*, 63 (October, 1965), 21.

<sup>26</sup> Interview with Lowell Wakefield, June 24, 1974.

<sup>27</sup> *Pacific Fisherman*, 63(March, 1965), 24, 64 (October, 1966), 14–15, 65 (January 25, 1967), 126.

<sup>28</sup> Dr. Norman Wilimovsky; *Kodiak Mirror*, October 25, 1958, *Pacific Fisherman*, 55 (May, 1957), 33, 57 (January, 1959), 17.

<sup>29</sup> Alaska Fisheries Board, *Annual Reports*, 1952, 10, 1954, 11; U.S. Fish and Wildlife Service, *Laws and Regulations for Commercial Fisheries of Alaska*, 1950, 20–21, 1954, 20.

pot fishermen for the wanton destruction of crabs while en route to shore-bound processing plants, and defended trawling as the most efficient and least harmful method of crab fishing.<sup>30</sup>

The poor state of knowledge about crabs severely hindered the effectiveness of the rules that did exist. In 1956 and 1957 the Fish and Wildlife Service began to seriously study the link between fishing intensity and king crab yields, and about the same time marine biologists hired by the Alaska Fisheries Board began to expand the scope of their own investigations into the habits of king crab.<sup>31</sup> These efforts were a little late and Wakefield's fears came to pass as localized scarcities of crabs began to appear in 1958, namely in certain areas of the Cook Inlet and around Kodiak Island. Marine biologist Dr. Norman Wilimovsky reported signs of serious depletion in king crab populations in the Kachemak Bay area. After peaking in 1957, king crab catches fell alarmingly the next year despite intensified fishing efforts.<sup>32</sup>

In the next few years the debate raged between proponents of trawling methods and the use of crab pots, and at first the Alaska Department of Fish and Game (ADFG) backed the pot fishermen, banning trawling and limiting the number of pots per boat to 30 in the prime fishing regions.<sup>33</sup> However in 1964 the ADFG reversed their decision, as the limits on pots per boat was determined to be difficult to enforce and overfishing was still occurring. Wakefield's arguments that such limits were primarily hindering the efforts of American fishermen to compete against foreign efforts had finally borne fruit.

Around the same time the major industry players, led by Lowell Wakefield, argued for limits on the number of ships allowed to fish for king crabs during any given season. Finally in 1970, the ADFG adopted a quota system, fixing a new quota each year. The agency also divided Alaska's king crab fishing grounds into six specific geographical areas, placing restrictions on the movement of boats between them during a season, and setting a maximum catch for each one. In subsequent years the crab population began recovering, and the American crab pack had reached 106 million liveweight pounds.<sup>34</sup>

### 5.8. International fishing agreements between the U.S. and other countries

Even as they fought for desired fishing regulations for Alaska's territorial waters, Wakefield Seafoods became deeply involved in contests over fishing rights for the high seas.<sup>35</sup> In 1953 Japanese fishermen returned to the Bering Sea, and the arrival of large Russian fleets to this area triggered a violent round of international competition for the North Pacific's king crab resources. Representing the interests of American fishermen, Wakefield traveled to Tokyo to meet with officers of the Japanese fishing companies in order to hammer out an agreement. "Originally, the first move was an industry-to-industry thing," Wakefield recalled later.<sup>36</sup> This was an informal gentlemen's agreement of solving disputes as they occurred, without government involvement. A second example of informal institutions (North, 1990) were arrangements for the division of the crab grounds reached by fishermen on the spot.<sup>37</sup>

However, these institutions were soon formalized as governmental officials became involved. The International North Pacific Fisheries Commission (INPFC), established in 1952 by Canada, the U.S. and Japan, was of particular aid to Wakefield Seafoods' international efforts. The INPFC was an international agency designed to study and regulate the fisheries resources of the North Pacific in the interests of conservation. Wakefield served as an industry advisor to the American delegation to the INPFC, and in 1955 and 1956 he used the agency's services to help clear up gear conflicts with the Japanese.<sup>38</sup>

The battle with the Russians over fishing rights was more heated. In the winter of 1963–1964, a Russian fleet of 200 vessels played havoc with American crab fishermen in the Gulf of Alaska, destroying crab pots and cleaning out fishing grounds. At one point some American fishermen responded by arming their boats with antitank guns and threatening to shoot it out with the Russians.

Against a background of frenzied international competition the U.S. entered into negotiations with Japan in the fall of 1964 and with the Soviet Union in the winter of 1964–1965 over king crab fishing rights. Wakefield, Takashi Miyahara and William Ritter acted as the industry advisors to the American delegation and carried much of the brunt of the daily work. Negotiations with the Japanese, who did not recognize the United Nations continental shelf convention established during the 1958 conference on the law of the sea (giving coastal nations almost exclusive control over the exploitation of their continental shelves and sedentary creatures on them to the depth of 200 m),<sup>39</sup> proved to be difficult. As talks continued, however, the Japanese eventually agreed to most of the American conditions, including new limitations on the work of their nation's king crab fleets. Several members of the delegation singled out Wakefield's individual efforts for this turnabout on the part of the Japanese.<sup>40</sup>

<sup>30</sup> Kodiak Mirror, October 20, 1956.

<sup>31</sup> Alaska Fisheries Board, *Annual Reports*, 1952, 10, 1954, 11; U.S. Fish and Wildlife Service, *Laws and Regulations for Commercial Fisheries of Alaska*, 1950, 20–21, 1952, 20.

<sup>32</sup> Kodiak Mirror, October 25, 1958; *Pacific Fisherman*, 55 (May 1957), 33, 57 (January, 1959), 17.

<sup>33</sup> *Pacific Fisherman*, 57 (December 1959), 5–6.

<sup>34</sup> ADFG, *Annual Report*, 1971, 20, ADFG, *News*, February 27, 1974; *National Fisherman*, 51 (May, 1970), 15-A; *Pacific Packers Report*, 1977 (Seattle), 27.

<sup>35</sup> *Pacific Fisherman*, 57 (December 1959), 5–6. Alaska Department of Fish and Game, *Annual Report*, 1971, 20; Alaska Department of Fish and Game, *News*, February 27, 1974; *National Fisherman*, 51 (May 1970), 15-A; *Pacific Packers Report*, 1977 (Seattle), 27.

<sup>36</sup> Interview with Lowell Wakefield, June 24, 1974.

<sup>37</sup> Interview with William Blackford, August 1, 1974.

<sup>38</sup> Wakefield to directors, Wakefield Seafoods, August 1, 1956, Philip Padelford Papers; Wakefield to stockholders, Wakefield Seafoods, June 13, 1995; May 1, 1956, Philip Padelford Papers.

<sup>39</sup> Christy and Scott, *Common Wealth*, chapter 9; J.V.R. Prescott, *The Political Geography of the Oceans*, chapter 5.

<sup>40</sup> *Commercial Fisheries Review*, 27 (January 1965), 26, 27 (February 1965), 59–62; *Pacific Fisherman*, 62 (November 1964), 1, 62 (December 1964), 10; U.S. Department of State, *Bulletin*, 62 (December 21, 1964), 892; *Treaties*, 15 (1964), "Japan Fisheries, King Crab: Agreement Effectuated by Exchange of Notes, Signed at Washington, November 25, 1964".



After the merger of Wakefield Seafoods in October, 1968 with Hunt-Wesson, a division of Norton Simon,<sup>41</sup> Wakefield's interests in the politics of fisheries intensified. While continuing his participation in quality control legislation and the preparations of fishing regulations for Alaskan territorial waters, he became increasingly involved in world fisheries problems. The international law of the sea, especially that pertaining to the exploitation of continental shelves, became his particular concern. In numerous speeches and appearances before regional and national organizations of business executives and government officials Wakefield continued to press for aid of the federal government in the rational development of fisheries resources. He continued in his role as an industry advisor to the INPFC, and participated in the United Nations Law of the Sea Conferences in 1974, 1975 and 1976.<sup>42</sup>

## 6. Co-creation of the king crab opportunity and industry standards

As the creation process unfolded the opportunity for commercial king crab became observable and the knowledge that value had been created was diffused. Now Wakefield had to concern himself with capturing the value of the opportunity he had created. In order to accomplish this, Wakefield had to create institutions where institutional voids had existed. Wakefield's efforts at value appropriation revolved around three closely related issues: quality control regulation, fishing regulations in Alaskan waters, and international fishing agreements. This involved building industry standards and stakeholder support

### 6.1. Opportunities and building standards

During the process of opportunity formation much of the early entrepreneurial action is devoid of deeper social meaning or reflection (Berger and Luckmann, 1967). The entrepreneurial actor that is forming the opportunity is inward focused and steeped in details about the opportunity as optimistic scenarios about the emerging opportunity are developed (Berger and Luckmann, 1967; Garud and Ahlstrom, 1997). The entrepreneurial actor through the accumulations of actions, often break with established broader routines in a particular industry or market (Obstfeld, 2012; Taylor and Greve, 2006). The emerging opportunity is the creation of a new social reality, built upon the actions and interactions of individuals (Parsons, 1951) accompanied by the discourse and language around these human interactions (Searle, 2010; Tsoukas, 2009). The products or services constructed entail new patterns of social interaction (Berger and Luckmann, 1967), new language combinations (Tsoukas, 2009), a common interpretation of the uses and value of a product or service (Brenner and Tripsas, 2012), and the creation of new value to be appropriated (Alvarez and Barney, 2004).

As these actions begin to accumulate into an opportunity they take on broader meaning and order, becoming the new practices that form a new social reality and new institutions (Berger and Luckmann, 1967; Lounsbury and Crumley, 2007). This emerging market that lacked a clear view of the industry structure (Santos and Eisenhardt, 2009) now begins to have shared industry beliefs (Porac and Baden-Fuller, 1989; Spender, 1989). As the new opportunity and industry co-emerge, knowledge becomes diffused and new entrants introduce variations from those of the pioneering entrepreneurs (Martin and Mitchell, 1998). As the opportunity becomes diffused allowing for new entrants to challenge the pioneering entrepreneurs, conflict often arises. Entrepreneurs that initially formed the opportunity may actively resist the new entrants or try to control the new entrants in a manner that favors the pioneering entrepreneur. These later entrants can undermine the previous investments made by the pioneering entrepreneurs or appropriate value that the pioneering entrepreneurs created.

Consistent with institutional work, the pioneering entrepreneur is motivated to engage in practices to create new institutions in the form of a market or industry. The early entrepreneur incentivized to develop artifacts, beliefs, language, and industry norms that enable the stabilization and the alignment of stakeholders. This industry that is coalescing around knowledge and developing new meanings about both the technology and the market still lacks standards for competitors or suppliers (Rindova and Fombrun, 2001), and lacks a dominant standard to guide action (Aldrich and Fiol, 1994; Garud et al., 2002). Stabilizing the emerging institutions and preserving the new status quo is in the self-interest of the pioneering entrepreneur. These observations lead to proposition one:

P1: To serve their own economic interests, profit-seeking entrepreneurs' forming opportunities engage in actions and practices of opportunity creation and institutional work that structure and stabilize the co-emerging institutions through industry standards that favor their opportunity.

There is a good deal of evidence in the king crab case to suggest that the successful commercialization of king crabmeat by Wakefield induced new players such as the beach boilers to enter the new industry, as well as attracted entrants from other industries such as the salmon industry. The beach boilers "came and went" with the seasons<sup>43</sup> and had little concern for other's perceptions of their companies, and perhaps more damaging, other's perceptions of the industry. The king crab industry grew so quickly that by 1966, approximately twenty processors were vying with each other for Alaska's king crab catch, and by 1967 twenty-eight were competing in the city of Kodiak alone. The king crab industry had gone from experimentation to ferment in a short time.

One approach of institutional work suggests that firms in an emerging industry facing uncertainty rely on similar institutional forces and thus are likely to imitate each other (Brenner and Tripsas, 2012; DiMaggio and Powell, 1983; Mansfield, 1961). However, when industries do not have established standards and consumers are in the process of learning about the product or service, and the

<sup>41</sup> "Minutes of Special Meeting of the Shareholders, Wakefield Seafoods, October 29, 1968," Philip Padelford Papers.

<sup>42</sup> *Anchorage Daily News*, June 30, 1968; Guy Powell to Wakefield, January 8, 1970, Lowell Wakefield Papers; Wakefield, "A Commercial Fish Processor's Views on Development of the Shelf," draft of a speech to Law of the Sea Institute, University of Rhode Island, June 26, 1968, Lowell Wakefield Papers; Wakefield, "Remarks," draft of talk to Third Sea Grant Conference, Oregon State University, March 5, 1970, Lowell Wakefield Papers; Wakefield, "The United States Will Not Protect Alaska's Interests at the Next Law of the Sea Conference," draft of a speech to Alaska State Chamber of Commerce, Kodiak, Alaska, May 19, 1972, Lowell Wakefield Papers; Wakefield to members of Alaska King Crab Institute, October 20, 1971, Lowell Wakefield Papers; Wakefield to Richard Nixon, October 5, 1971, Lowell Wakefield Papers.

<sup>43</sup> *Pacific Fisherman*, 63(March, 1965), 24, 64 (October, 1966), 14–15, 65 (January 25, 1967), 126.



future is uncertain, it is more likely that the firm's actions will be a reflection of the entrepreneurial actor's beliefs and interpretations (Daft and Weick, 1984). The emerging industry under conditions of uncertainty is awash in product variations that are competing against each other (Anderson and Tushman, 2001). Finally, direct competitors are likely to want to differentiate their practices since direct competition will reduce the benefit of entry (Greve, 1996). This was the case in the emerging/fermenting king crab industry with the entry of the beach boilers and fishermen from other related areas such as the salmon industry.

The entrepreneur in this scenario will work towards gaining political support in order to garner regulatory support (Lawrence and Suddaby, 2006). As noted in the data in the 1950s, Wakefield Seafoods' worked with Alaskan territorial, Washington State and federal government officials on quality control programs. From the 1950s, through the 1960s Kenneth Thorson, Wakefield's firm's biological research and quality control officer, pursued legislative actions with members of the state senate and assembly.<sup>44</sup>

In 1965, Wakefield Seafoods' drafted the Alaska King Crab Marketing and Quality Control bill, referred to as "The Wakefield Bill."<sup>45</sup> It was the quality control functions of the board that was stressed the most.<sup>46</sup> The bill introduced by Senator Alfred Owen in mid-February, 1965, and supported by Governor William Egan, noted that "the operation and success of this board" would be watched closely by other food processors in Alaska and believed that as the board "improves the quality and marketing of king crab...processors of other types of seafood will be interested in establishing similar boards."<sup>47</sup>

Wakefield Seafoods, with its first mover advantages and high quality standards, remained at the top of the industry. While Wakefield's efforts at building institutions around quality control reflected a genuine pride on the part of management in producing the best crab available, the emphasis on quality control also played an integral role in the company's competitive strategy that led to sustainability. As Wakefield explained, by putting up a superb product the company had something to sell that was new to the world of fishing. Addressing the consumer subcommittee, Senate Committee on Commerce in June 1967, Wakefield said, "If you think one of the reasons our company is for this legislation is that it will force some of our substandard competitors to clean up shop, you're right."<sup>48</sup>

## 6.2. Opportunities and building stakeholder support

While standards and standardization are ubiquitous in society, constructing standards involves considerable entrepreneurial activity, cost, and significant social and political skill to convince legal systems to adopt a particular set of regulations (Hwang and Powell, 2005). In order for pioneering entrepreneurs to fully capture the benefits from their opportunity formation process they need to encourage members of the collective to adapt the new opportunity for their own use, while not compromising the value that has been created through new processes and technologies. While the creation of new regulations has not typically focused on the actions of entrepreneurs forming and exploiting opportunities, these pioneering entrepreneurs are particularly motivated to influence new regulations.

Consistent with the construction of normative networks in institutional work, entrepreneurs in this scenario will form a peer group with respect to "compliance, monitoring, and evaluation" (Lawrence and Suddaby, 2006; 221). Entrepreneurs in these conditions need to juggle the "dual roles of creation and enforcer" (Hwang and Powell, 2005: 188). The adoption of common standards and regulations is an outcome of the entrepreneur's action that has gained sufficient support—often from those whose private interests might be constrained by the new standard. These entrepreneurs enroll outside others into their view by using various forms of communication such as membership on boards or by becoming influential through visible actions (Greve, 1996).

In competitive settings the pioneering entrepreneur often encourages the formalization of the new "rules of the game" to favor their own self-interest. The concept of communal governance, where individuals or groups design communal norms and enforcement mechanisms to govern a common pool of resources (Ostrom, 2000), has been discussed outside of the entrepreneurship literature (Pacheco et al., 2010). However, when this communal design of norms and enforcement mechanisms are enacted by the self-interested behavior of a profit-seeking entrepreneur, it is typically viewed dimly among the competitors. Yet, for entrants to benefit from the standards and regulations these rivals must cooperate. The pioneering entrepreneur is challenged to get the standards and regulations they want while including their competitors in a manner that broadens the new institutions.

Pioneering entrepreneurs use social and political skills to persuade others about the superiority of their understanding of the opportunity and enroll a broad array of stakeholders into their constructed view of the opportunity (Berger and Luckmann, 1967). This leads us to the following observation:

P2: To serve their own economic interests, profit-seeking entrepreneurs simultaneously create opportunities and engage in institutional work to develop cooperation among competitors and stakeholders that do not benefit financially from the opportunity to build shared industry beliefs and meaning.

As noted in the data, with a product such as the king crab, the lack of standards had an even more dire effect, as localized scarcities of crabs began to appear in 1958. Serious depletion in king crab populations were reported, despite even more intensified fishing efforts king crab catches fell alarmingly. Even more extreme, Wakefield had observed new entrants wantonly destroying king crabs on the way to the processing plants. Wakefield called for prosecutions of these individuals—but the lack of common standards and regulations to govern these practices made it difficult if not impossible to prosecute.

<sup>44</sup> Interview with Kenneth Thorson, August 13, 1974.

<sup>45</sup> *Anchorage Daily Times*, August 27, 1965; *Pacific Fisherman*, 63 (June, 1975), 40–41.

<sup>46</sup> Interview with Lowell Wakefield, June 24, 1974.

<sup>47</sup> *Anchorage Daily Times*, February 20, 1965; *Juneau Alaska Empire*, February 18, 1965.

<sup>48</sup> "Statement for presentation to consumer subcommittee, Senate Committee on Commerce, June 21, 1967, in support of the Fisheries Products Protection Act of 1967 (S. 1472) by Lowell Wakefield," Lowell Wakefield Papers.

As competition intensified in the 1960s, Wakefield and his team got more heavily involved in political issues surrounding the nascent king crab industry. Their efforts revolved around two closely related issues: fishing regulations in Alaskan waters and fishing regulations in international waters. Wakefield's sponsorship of his standards in the fishing industry illustrates the challenges a pioneering entrepreneur faces in sponsoring its own innovations as a common standard. By bringing to light the over-fishing and needless destruction of the king crabs Wakefield worked with government entities such as the U.S. Fish and Wildlife Service and The International North Pacific Fisheries Commission (INPFC), to form regulations to protect the king crabs from being over harvested. Wakefield gained the trust of interested others who were motivated by non-financial concerns. Wakefield's political and social skills and his ability to negotiate through difficulties in the process cannot be overstated.

As illustrated in the data, the debate raged between proponents of trawling methods and the use of crab pots. In 1959, the Alaska Department of Fish and Game (ADFG) banned trawling and limited the number of pots per boat. However in 1964 the ADFG reversed their decision, as the limits on pots per boat was determined to be difficult to enforce and overfishing was still occurring. Established traditional fishing companies (i.e. salmon) were seeking regulations within Alaskan territorial waters to restrict the types and amount of fishing gear boats could employ. Around the same time the major industry players, led by Lowell Wakefield, argued for limits on the number of ships allowed to fish for king crabs during any given season. In large part due to Wakefield's efforts in 1970, the ADFG adopted a quota system, fixing a new quota each year setting a maximum catch for each one. Wakefield's primary reason, beyond conservation, was to maintain an advantage for American fishermen.

However, the over-harvesting of the king crabs went beyond the actions of U.S. fisherman and included the Japanese and the Russians. Wakefield became particularly interested in preventing the exploitation of continental shelves. As noted in the data, Wakefield made numerous speeches and appearances before regional and national organizations of business executives and government officials pressing for federal aid in the development of fisheries resources. He continued in his role as an industry advisor to the INPFC, and participated in the United Nations Law of the Sea Conferences in 1974, 1975 and 1976.<sup>49</sup> In this manner, Wakefield not only had the support of industry competitors and participants through mutually established regulations, but additionally Wakefield established himself among stakeholders with no financial interests.

## 7. Discussion

This paper illustrates the actions and practices of profit-seeking entrepreneur, Lowell Wakefield, and how an opportunity together with an industry and market were formed. The diversified nature of the data—the use of interviews, company private papers and financial data, as well as the data available in the newspapers and government reports of the day—allows this paper to triangulate and hone in on the specific actions taken by Wakefield and his team. Moreover, the data allows for the detailed examination of the actions of others of the day such as suppliers, competitors and government actors, to gain a comprehensive understanding of how the opportunity and the regulatory institutions were enacted as Wakefield Seafoods sought to gain profit. Wakefield's enactment of the king crab opportunity, such as the formation of his team and the equipment innovations, are considered entrepreneurial actions and practices. Further, Wakefield's actions in developing the necessary institutions such as industry standards for quality control, food safety, and fishing rights should also be considered the entrepreneurial actions of institutional work required to enact and fully realize the opportunity.

Wakefield's actions forming the opportunity in this paper illustrate that opportunity formation is a process that involves many different practices occurring simultaneously: the formation of the idea, product, firm, market and industry standards. Much of the prior literature in entrepreneurship has considered opportunity formation to be an event that is outside the control of the entrepreneur. More problematic is that this literature has considered opportunity formation to be separate from the exploitation of the opportunity and the formation of the institutions needed to fully realize the opportunity. However, consistent with more current work in entrepreneurship that suggests opportunities are not formed independent of the entrepreneur this paper illustrates the practices and the many processes of forming and exploiting an opportunity from ferment to coalescence to dominant design (Alvarez and Barney, 2007; Gregoire et al., 2010). This paper brings individual practices into the entrepreneurial process.

The other contribution of this paper is to recognize the agency of the profit-seeking entrepreneur into the institutional work of industry formation, its standards and the enrollment of other industry participants—even including their own competition. As illustrated in this paper Wakefield had economic incentives to initiate and follow through on the establishment of standards and regulations in this new king crab industry that emerged simultaneously with the opportunity. Equally important to Wakefield's actions are the actions of others—the withdrawal of the Japanese and Russians, the early failure of Pacific Fishing and Trading in 1938, the government's decision in 1940 to dismiss king crab as a viable industry—which are also part of this picture. The unwillingness of the others to engage in forming the king crab opportunity emphasizes the institutional void (Khanna & Palepu, 2000a, 2000b), and the lack of economic incentive to fill this void. This institutional void, in which Wakefield was operating at the time, highlights the importance of his actions to the formation of the opportunity and industry structure.

Another insight generated by the data is that the creation of the new standards were indeed led by the profit-seeking entrepreneur, contrary to previous work that suggests individuals embedded in the industry, with prior industry affiliation and experience,

<sup>49</sup> *Anchorage Daily News*, June 30, 1968; Guy Powell to Wakefield, January 8, 1970, Lowell Wakefield Papers; Wakefield, "A Commercial Fish Processor's Views on Development of the Shelf," draft of a speech to Law of the Sea Institute, University of Rhode Island, June 26, 1968, Lowell Wakefield Papers; Wakefield, "Remarks," draft of talk to Third Sea Grant Conference, Oregon State University, March 5, 1970, Lowell Wakefield Papers; Wakefield, "The United States Will Not Protect Alaska's Interests at the Next Law of the Sea Conference," draft of a speech to Alaska State Chamber of Commerce, Kodiak, Alaska, May 19, 1972, Lowell Wakefield Papers; Wakefield to members of Alaska King Crab Institute, October 20, 1971, Lowell Wakefield Papers; Wakefield to Richard Nixon, October 5, 1971, Lowell Wakefield Papers.

frame the emerging industry (Brenner and Tripsas, 2012; Garud et al., 2002). This is consistent with Kuhn's (1970) work on emerging paradigms. Wakefield had broad experience in the sense that he grew up in a fishing family and close to the water, but he had not been employed in the fishing industry prior to his experimentation with king crab. However, he was hesitant to start a new firm in an established fishing industry that he believed might be on the decline. Consistent with Kuhn (1970), the king crab opportunity did not emerge in these existing industries; had it done so it could have been integrated into an established industry. If the experience base of an existing industry had been useful, a new industry would probably not have been formed. That a new industry is required is a strong indicator that prior industry experience is constraining as opposed to essential.

Wakefield's actions outside of the established industries, from developing new technology that later became the new industry standard, to developing new language describing the new technologies, to enrolling the new industry participants, to becoming involved in politics to protect the fledgling industry, are indicators that a new industry was required. Had Wakefield only been concerned with trying to discover an opportunity and relied on localized search of the existing fishing industries, the king crab opportunity may never have been developed. Through trial and error and a process of enactment, Wakefield went through several iterations of the opportunity and in so doing built much more than just a firm—he built a market and an industry.

Neither economic nor sociological streams of institutional entrepreneurship research have extensively enveloped the numerous insights of the profit-seeking entrepreneur available in the entrepreneurship literature (Battilana et al., 2009; Pacheco et al., 2010; Phillips and Tracey, 2007). Indeed, the profit-seeking entrepreneur has been largely absent from these economic and sociological approaches to entrepreneurship. This paper brings this entrepreneur into the formation of new institutions.

## 8. Limitations and future research

Case studies have been criticized as being descriptive as opposed to critical, and storytelling as opposed to analytical. The generalizability of case studies has also been questioned. In this paper we address these concerns by having stated theory and propositions that are being examined through the use of case data. By using theory as the starting point instead of trying to theory build from data, many of the complaints on the use of case research are overcome. Nevertheless, it is acknowledged that this is a single data point and the findings should not be over generalized.

However, what this paper has highlighted is the need for more process research in entrepreneurship and organizational studies that take into account the actions and practices of individual actors. Through a research focus of individual action and practice, insights that have only been theorized to date can be either verified or falsified. While the king crab case study in this paper has shed light on theories of entrepreneurship and institutional work, more studies should be done to replicate the findings of this study.

## 9. Conclusion

This paper examines the king crab case in which the profit-seeking entrepreneur, Lowell Wakefield, had to engage in institutional work as part of the opportunity formation process. While the field of entrepreneurship has moved away from viewing opportunities as an “ah ha” experience, they still do not equate the enrolling of stakeholders, building of artifacts, shared beliefs and meanings, exploitation, and value capture of the opportunity as part of the creation process. Wakefield engaged in the institutional work of building advocacy in order to gain political and regulatory support and constructing a peer group and industry identity all as part of the opportunity creation process.

This paper also extends theory on institutional work by highlighting the influence of the actions and practices of the for profit entrepreneurial actor in creating institutions. In traditional institutional theory the diffusion of practices has typically involved an object being recognized, accepted by few actors, and then widely diffused and accepted (Lawrence and Suddaby, 2006). The king crab case brings front and center the individual practices by an actor that constitute institutional work that diffuses the new innovation. Lowell Wakefield had to enroll other stakeholders on the merits of king crabmeat, develop new language such as the crab shaker, gain broad acceptance of the new product, and then get regulatory and political support to ensure the endurance of the king crab opportunity.

Finally, this paper illustrates that forming an opportunity and engaging in the institutional work that accompanies the opportunity can take a significant amount of time. This is important to both entrepreneurship and institutional theory in that it highlights the length of time it takes for the iterative process of entrepreneurial action and reaction from institutional stakeholders. While previous research has not explicitly addressed the complex time consuming nature of opportunity and institutional work, the implied assumption has often been that both processes occur quickly. The king crab case explicitly reminds researchers that dynamic processes can often take years—in this case, three decades.

## References

- Abernathy, W.J., Utterback, J.M., 1978. Patterns of industrial innovation. *Technol. Rev.* 41–47 (June/July).
- Aldrich, H., Fiol, C.M., 1994. Fools rush in? The institutional context of industry creation. *Acad. Manag. Rev.* 19 (4), 645–670.
- Alvarez, S.A., Barney, J.B., 2004. Organizing rent generation and appropriation: toward a theory of the entrepreneurial firm. *J. Bus. Ventur.* 19 (5), 621–635.
- Alvarez, S.A., Barney, J.B., 2007. Discovery and creation: alternative theories of entrepreneurial action. *Strateg. Entrep. J.* 1 (1–2), 11–26.
- Alvarez, S.A., Barney, J.B., Anderson, P., 2013. Forming and exploiting opportunities: the implications of discovery and creation processes for entrepreneurial and organizational research. *Organ. Sci.* 24 (1), 301–317.
- Alvarez, S.A., Young, S.L., Woolley, J., 2014. Creating the world's deadliest catch: the process of opportunity formation. Working Paper.
- Anderson, P., Tushman, M., 2001. Technological discontinuities and dominant designs: a cyclical model of technological change. *Adm. Sci. Q.* 35, 604–633.
- Baker, T., Nelson, R., 2005. Creating something from nothing: resource construction through entrepreneurial bricolage. *Adm. Sci. Q.* 50 (3), 329–366.

- Bansal, P., Roth, K., 2000. Why companies go green: a model of ecological responsiveness. *Acad. Manag. J.* 43 (4), 717–736.
- Barley, S., 1986. Technology as an occasion for structuring: evidence from observations of CT scanners and the social order of radiology departments. *Adm. Sci. Q.* 31 (1), 78–108.
- Battilana, J., Leca, B., Boxenbaum, E., 2009. How actors change institutions: towards a theory of institutional entrepreneurship. *Acad. Manag. Ann.* 3 (1), 65–107.
- Baumol, W.J., 1990. Entrepreneurship: productive, unproductive, and destructive. *J. Polit. Econ.* 98 (5), 893–921.
- Berger, P.L., Luckmann, T., 1967. *The Social Construction of Reality. A Treatise in the Sociology of Knowledge*. Anchor Books Doubleday, Garden City, NY.
- Blackford, M., 1979. Pioneering a Modern Small Business: Wakefield Seafoods and the Alaskan Frontier. JAI Press Inc., Greenwich.
- Brenner, M.J., Tripsas, M., 2012. The influence of prior industry affiliation on framing in nascent industries: the evolution of digital cameras. *Strat. Manag. J.* 33, 277–302.
- Bresman, H., 2013. Changing routines: a process model of vicarious group learning in pharmaceutical R&D. *Acad. Manag. J.* 56 (1), 35–61.
- Bruton, G., Ahlstrom, D., Li, H., 2010. Institutional theory and entrepreneurship: where are we now and where do we need to move in the future? *Entrep.: Theory Pract.* 34 (3), 421–440.
- Buenstorf, G., 2007. Creation and pursuit of entrepreneurial opportunities: an evolutionary economics perspective. *Small Bus. Econ.* 28, 323–327.
- Burgelman, R.A., 1994. Fading memories: a process theory of strategic business exit in dynamic environments. *Adm. Sci. Q.* 39 (1), 24–56.
- Clark, K.B., 1985. The interaction of design hierarchies and market concepts in technological evolution. *Res. Policy* 14 (12), 235–251.
- Daft, R.L., Weick, K.E., 1984. Toward a model of organizations as interpretation systems. *Acad. Manag. Rev.* 9 (2), 284–295.
- Demsetz, H., 1967. Toward a theory of property rights. *Am. Econ. Rev.* 57 (May), 347–359.
- Demsetz, H., 1968. Why regulate utilities? *J. Law Econ.* 55–66 (October).
- DiMaggio, P., 1988. Interest and agency in institutional theory. In: Zucker, L. (Ed.), *Institutional Patterns and Culture*. Ballinger, Cambridge.
- DiMaggio, P., 1991. Constructing an organizational field as a professional project: U.S. art museums, 1920–1940. In: W. P., DiMaggio, P. (Eds.), *The New Institutionalism in Organizational Analysis*. The University of Chicago Press Books, Chicago.
- DiMaggio, P., Powell, W., 1983. The iron cage revisited: institutional isomorphism and collective rationality in organizational fields. *Am. Sociol. Rev.* 48, 147–160.
- Dimov, D., 2010. Grappling with the unbearable elusiveness of entrepreneurial opportunities. *Entrep.: Theory Pract.* 57–81 (January).
- Dosi, G., 1984. *Technical Change and Industrial Transformation*. St. Martin's Press, New York.
- Eisenhardt, K.M., 1989. Building theories from case study research. *Acad. Manag. Rev.* 14, 532–550.
- Eisenhardt, K.M., Graebner, M.E., 2007. Theory building from cases: opportunities and challenges. *Acad. Manag. J.* 50 (1), 25–32.
- Fligstein, N., 1997. Social skill and institutional theory. *Am. Behav. Sci.* 40, 397–405.
- Galvin, T., 2002. Examining institutional change: Evidence from the founding dynamics of U.S. health care interest associations. *Academy of Management Journal* 45 (4), 673–696.
- Garud, R., Ahlstrom, D., 1997. Technology assessment: a socio-cognitive perspective. *J. Technol. Manag.* 14, 25–48.
- Garud, R., Jain, S. (Eds.), 1996. *The embeddedness of technological systems* 14. JAI Press, Greenwich, CT.
- Garud, R., Karnoe, P., 2003. Bricolage versus breakthrough: distributed and embedded agency in technology entrepreneurship. *Res. Policy* 32, 277–300.
- Garud, R., Rappa, M.A., 1994. A socio-cognitive model of technology evolution: the case of cochlear implants. *Organ. Sci.* 5 (3), 344–362.
- Garud, R., Jain, S., Kumarasamy, A., 2002. Institutional entrepreneurship in the sponsorship of common technological standards: the case of Sun Microsystems and Java. *Acad. Manag. J.* 45 (1), 196–214.
- Garud, R., Hardy, C., Maguire, S., 2007. Institutional entrepreneurship as embedded agency: an introduction to a special issue. *Org. Stud.* 28 (7), 957–969.
- Greenwood, R., Suddaby, R., 2006. Institutional entrepreneurship in mature fields: the big five accounting firms. *Acad. Manag. J.* 49 (1), 27–48.
- Greenwood, R., Li, S.X., Prakash, R., Deephouse, D.L., 2005. Reputation, diversification and organizational explanations of performance in professional service firms. *Organ. Sci.* 16 (6), 661–675.
- Gregoire, D.A., Barr, P.S., Shepherd, D.A., 2010. Cognitive processes of opportunity recognition: the role of structural alignment. *Organ. Sci.* 21 (2), 413–431.
- Greve, H.R., 1996. Patterns of competition: the diffusion of a market position in radio broadcasting. *Adm. Sci. Q.* 41 (1), 29–60.
- Hamel, G., Prahalad, C.K., 1994. *Competing for the Future*. Harvard Business School Press, Boston.
- Hardy, C., Maguire, S., 2008. Institutional entrepreneurship. In: Greenwood, R., Oliver, C., Suddaby, R., Shalin-Anderson, K. (Eds.), *Handbook of Organizational Institutionalism*. Sage, Thousand Oaks, CA.
- Hardy, C., Phillips, N., 1998. Strategies of engagement: lessons from the critical examination of collaboration and conflict in an interorganizational domain. *Organ. Sci.* 9 (2), 217–230.
- Hargadon, A., Douglas, Y., 2001. When innovations meet institutions: Edison and the design of the electric light. *Adm. Sci. Q.* 46 (3), 476–501.
- Hirsch, P., Lounsbury, M., 1997. Ending the family quarrel: toward a reconciliation of old and new institutionalism. *Am. Behav. Sci.* 40, 406–418.
- Hwang, H., Powell, W.W. (Eds.), 2005. *Institutions and Entrepreneurship* vol. 2. Springer, New York.
- Jepperson, R.L., 1991. Institutions, institutional effects, and institutionalism. In: Powell, W.W., DiMaggio, P.J. (Eds.), *The New Institutionalism in Organizational Analysis*. University of Chicago Press, Chicago.
- Jick, T.D., 1979. Mixing qualitative and quantitative methods—triangulation in action. *Adm. Sci. Q.* 24 (4), 602–611.
- Khanna, T., Palepu, K., 2000a. The future of business groups in emerging markets: long-run evidence from Chile. *Acad. Manag. J.* 43 (3), 268–285.
- Khanna, T., Palepu, K., 2000b. Is group affiliation profitable in emerging markets? An analysis of diversified Indian business groups. *J. Financ. LV* (2), 867–891.
- Klepper, S., Graddy, E., 1990. The evolution of new industries and determinants of market structure. *RAND J. Econ.* 21 (1), 27–44.
- Kuhn, T.S., 1970. *The Structure of Scientific Revolutions*. The University of Chicago Press, Chicago.
- Lawrence, T.B., Suddaby, R., 2006. Institutions and institutional work. In: Clegg, S.R., Hardy, C., Lawrence, W.R., Nord, W.R. (Eds.), *Handbook of Organization Studies*. Sage, London, pp. 215–254.
- Lee, T.W., Mitchell, T.R., Sablynski, C., 1999. Qualitative research in organizational and vocational psychology, 1970–1999. *J. Vocat. Behav.* 55, 161–187.
- Locke, K., 2001. *Grounded Theory in Management Research*. Sage, Thousand Oaks.
- Lounsbury, M., 2001. Institutional sources of practice variation: Staffing university and college recycling programs. *Administrative Science Quarterly* 46, 29–56.
- Lounsbury, M., Crumley, E.T., 2007. New practice creation: an institutional perspective on innovation. *Organ. Stud.* 28 (7), 993–1012.
- MacKay, R.B., Chia, R., 2013. Choice, chance, and unintended consequences in strategic change: a process understanding of the rise and fall of Northco Automotive. *Acad. Manag. J.* 56 (1), 208–230.
- Maguire, S., Hardy, C., Lawrence, T.B., 2004. Institutional entrepreneurship in emerging fields: HIV/AIDS treatment advocacy in Canada. *Acad. Manag. J.* 47, 657–679.
- Mansfield, E., 1961. Technical change and the rate of imitation. *Econometrica* 29 (4), 741–766.
- Martin, X., Mitchell, W., 1998. The influence of local search and performance heuristics on new design introduction in a new product market. *J. Res. Policy* 26, 753–771.
- Meyer, K.E., Estrin, S., Bhaumik, S.K., Peng, M.W., 2009. Institutions, resources, and entry strategies in emerging economies. *Strat. Manag. J.* 30, 61–80.
- Miles, M.B., Huberman, A.M., 1994. *Qualitative Data Analysis: An Expanded Sourcebook*. Sage, Thousand Oaks.
- Minniti, M., 2008. The role of government policy on entrepreneurial activity: productive, unproductive, or destructive. *Entrep.: Theory Pract.* 779–790 (September).
- Navis, C., Glynn, M.A., 2010. How new market categories emerge: temporal dynamics of legitimacy, identity, and entrepreneurship in satellite radio. *Adm. Sci. Q.* 55, 439–471.
- North, D., 1990. *Institutions, Institutional Change and Economic Performance*. Political Economy of Institutions and Decisions Cambridge University Press, Cambridge.
- Pfeffer, J., Salancik, G.R., 1978. *The External Control of Organizations*. Harper and Row, New York.
- Obstfeld, D., 2012. Creative projects: a less-routine approach toward getting new things done. *Organ. Sci.* 23 (6), 1571–1592.
- Ostrom, E., 2000. Collective action and the evolution of social norms. *J. Econ. Perspect.* 14, 137–158.
- Orsato, R.J., den Hond, F., Clegg, S.R., 2002. The political ecology of automobile recycling in Europe. *Organization Studies* 23 (4), 639–665.
- Pacheco, D.F., York, J.G., Dean, T.J., Sarasvathy, S.D., 2010. The coevolution of institutional entrepreneurship: a tale of two theories. *J. Manag.* 36, 974–1010.
- Routines Revisited: Exploring the Capabilities and Practice Perspective. In: Parmigiani, A., Howard-Grenville, J. (Eds.), vol. 5. Routledge, Essex, U.K.
- Parsons, T., 1951. *The Social System*. Free Press, New York.



- Peng, M.W., 2003. Institutional transitions and strategic choices. *Acad. Manag. Rev.* 28 (2), 275–296.
- Pettigrew, A.M., 1990. Longitudinal field research on change: theory and practice. *Organ. Sci.* 1, 267–292.
- Phillips, N., Tracey, P., 2007. Opportunity recognition, entrepreneurial capabilities and bricolage: connecting institutional theory and entrepreneurship in strategic organization. *Strateg. Organ.* 5, 313–320.
- Porac, J.F., Baden-Fuller, T.H., 1989. Competitive groups as cognitive communities: the case of Scottish knitwear manufacturers. *J. Manag. Stud.* 26 (4), 397–416.
- Pratt, M.G., Rockmann, K.W., Kauffmann, J.B., 2006. Constructing professional identity: the role of work and identity learning cycles in the customization of identity among medical residents. *Acad. Manag. J.* 49 (2), 235–262.
- Rindova, V.P., Fombrun, C.J., 2001. Entrepreneurial action in the creation of the specialty coffee niche. In: Schoonhoven, C.B., E. R. (Eds.), *The Entrepreneurship Dynamic*. Stanford University Press, Stanford, CA.
- Ring, P.S., Bigley, G.A., D'Aunno, T., Khanna, T., 2005. Introduction to special topics forum: perspectives on how governments matter. *Acad. Manag. Rev.* 30 (2), 308–320.
- Roa, H., 1994. The social construction of reputation: certification contests, legitimation, and the survival of organizations in the American automobile industry: 1895–1912. *Strat. Manag. J.* (15), 29–44 (Winter).
- Roper, D.C., 1941. *Fifty Years of Public Life*. Duke University Press, Durham, NC.
- Santos, F.M., Eisenhardt, K.M., 2009. Constructing markets and shaping boundaries: entrepreneurial power in nascent fields. *Acad. Manag. J.* 52 (4), 643–671.
- Sarasvathy, S.D., 2001. Causation and effectuation: toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Acad. Manag. Rev.* 26 (2), 243–263.
- Scott, W.R., 1987. The adolescence of institutional theory. *Adm. Sci. Q.* 32, 493–511.
- Scott, W.R., 2001. *Institutions and Organizations*, 2nd edition. Sage, Thousand Oaks, California.
- Scott, W.R., 2014. *Institutions and Organizations. Ideas, Interests, and Identities*. Sage, Thousand Oaks, California.
- Searle, B., 2010. *The Construction of Social Reality*. Simon and Schuster, New York.
- Shane, S., 2003. *A General Theory of Entrepreneurship. The Individual-Opportunity Nexus*. Edward Elgar, Northampton, MA.
- Shane, S., Venkataraman, S., 2000. The promise of entrepreneurship as a field of research. *Acad. Manag. Rev.* 25 (1), 217.
- Siggelkow, N., 2007. Persuasion with case studies. *Acad. Manag. J.* 50 (1), 20–24.
- Singleton Jr., R.A., Straits, B.C., 2005. *Approaches to Social Research* 4th ed. New York Oxford University Press.
- Spender, J.C., 1989. *Industry Recipes: An Enquiry into the Nature and Sources of Managerial Judgement*. Blackwell, Oxford, UK.
- Suddaby, R., 2006. What grounded theory is not. *Acad. Manag. J.* 49, 633–642.
- Taylor, A., Greve, H.R., 2006. Superman or the fantastic four? Knowledge combination and experience in innovative teams. *Acad. Manag. J.* 49 (4), 723–740.
- Tripsas, M., Gavetti, G., 2000. Capabilities, cognition, and inertia: evidence from digital imaging. *Strateg. Manag. J.* 21 (10/11), 1147–1161.
- Tsoukas, H., 1989. The validity of idiographic research explanations. *Acad. Manag. Rev.* 14 (4), 551–561.
- Tsoukas, H., 2009. A dialogical approach to the creation of new knowledge in organizations. *Organ. Sci.* 20 (6), 947–957.
- Utterback, J.M., Abernathy, W.J., 1975. A dynamic model of process and product innovation. *Omega* 3 (6), 639–656.
- Van de Ven, A.H., 2007. *Engaged Scholarship: A Guide for Organizational and Social Research*. Great Clarendon Street, Oxford, Oxford.
- Van de Ven, A.H., Garud, R., 1994. The coevolution of technical and institutional events in the development of an innovation. In: Baum, J., Scingh, J.V. (Eds.), *Evolutionary Dynamics of Organizations*. Oxford University Press, New York.
- Walsh, I.A., Bartunek, J.M., 2011. Cheating the fates: organizational foundations in the wake of demise. *Acad. Manag. J.* 54, 1017–1044.
- Waldron, T.L.F., Navis, G., 2015. Institutional entrepreneurs' social mobility in organizational fields. *Journal of Business Venturing* 30 (1), 131–149 (in this issue).
- Westley, F., Antadze, N., 2010. Making a difference: strategies for scaling social innovation for greater impact. *Innov. J.: Public Sect. Innov. J.* 15 (2).
- Wiltbank, R., Dew, N., Read, S., Sarasvathy, S.D., 2006. What to do next? The case for non-predictive strategy. *Strateg. Manag. J.* 27 (10), 981–998.
- Wood, M.S., McKinley, W., 2010. The production of entrepreneurial opportunity: a constructivist perspective. *Strateg. Entrep. J.* 4, 66–84.
- Wright, A.L., Zammuto, R.F., 2013. Creating opportunities for institutional entrepreneurship: The Colonel and the Cup in English County Cricket. *J. Bus. Ventur.* 28 (1), 51–68.
- Yin, R.K., 2009. *Case Study Research Design and Methods*, 4th ed. Sage, Thousand Oaks.