Journal of Macromarketing
1-18

DOI: 10.1177/0276146714550314
jmk.sagepub.com
SAGE

Formation, Growth, and Adaptive Change in Marketing Systems

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Abstract

The article outlines an integrated theoretical framework identifying the causal processes underlying formation, growth, and adaptive change in marketing systems. Beginning with the co-evolution of behaviors, beliefs, and social practices that initiate innovative change in marketing systems, it integrates three theoretical frameworks drawn from analytical sociology, organization and social movement theory, and from macromarketing to show how and why economic exchange in and between human communities leads to formation, growth, and adaptive change in marketing systems. The theory of social mechanisms identifies the means whereby actions taken by individuals and entities participating in a marketing system will regularly produce over time the collective outcomes that characterize a marketing system. The theory of strategic action fields explains how these actions, engendered by competition between participants for material and status rewards in the social action field associated with a marketing system, lead to internal and external change in a marketing system. The theory of marketing systems identifies the tangible and intangible elements of structure and function in marketing systems that emerge from the interaction of social mechanisms and action fields over time and that are found in every human community. As marketing systems form, grow, and change they become part of the immediate environment in turn influencing the actions of individuals, groups and entities, as well as adjacent marketing systems, shaping on-going co-evolution, the operation of social mechanisms, and the strategic choices made by actors in action fields. The Mechanism, Action, Structure (MAS) framework of theory is dynamic, explores causation, links micro choices and macro structures, focusses on processes rather than variables, and links macromarketing with cognate social sciences in an understanding of economic exchange in human communities.

Keywords

marketing systems, social mechanisms, action fields, co-evolution, self-organization, emergence, macromarketing

> "The market is the result of human action but not of human design." Friedrich A. Hayek (1967).

Introduction

In 2002 a wave of public protest swept the coast of Western Australia as the deadline for approval of a major new resort approached. The resort was planned for Coral Bay, half way up the West Australian coast, a pristine, remote area noted for its natural beauty, its extensive in-shore coral reef, and for offering visitors opportunities to swim with whale sharks, turtles, dugongs, and manta rays. The protest succeeded, with the Government limiting development, creating the Ningaloo Marine Park, and seeking World Heritage listing for the region. In the years that followed, while development was slow and limited, tourism expanded. Australians, particularly the "grey nomads" (elderly couples driving around the continent), but also surfers, and visitors from the South were increasingly attracted by the remote beauty of the area. Overseas visitors grew in number, from eco-tourists to backpackers, drawn by the opportunity to explore a region almost unrivalled in its beauty. The emerging tourism marketing system centered on Ningaloo, although still in an early stage, was clearly heading for significant growth, raising once again concerns about sustainability, quality of life, and economic survival for those living in or troubled about the viability of the region (Duffy and Layton 2014).

The Ningaloo Reef communities are just one example of many destinations across the world where tourism marketing, once begun, can grow to threaten a breach of ecological, economic, or quality of life barriers. The issue of sustainability, often challenged by economic growth in one or more marketing systems, is of course much wider than tourism destination marketing, and raises deep questions as to formation, growth and adaptive change in marketing systems, wherever they are found.

In order to respond to these and similar concerns about the management of marketing systems, much deeper insight into

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the causal processes driving marketing system formation and growth is needed. Marketing systems can be thought of as complex social networks of individuals and groups linked through shared participation in the creation and delivery of economic value through exchange. The theory outlined here provides a new integrated account of the way such systems grow and change. It draws on theoretical insights from analytical sociology, from organization and social movement theory, from economics, and from complex systems modeling, linking these for the first time to explain marketing system structure, function, and outcomes.

What happens when a marketing system begins to form? The Ningaloo Reef situation (Duffy and Layton 2014), is an example where the resort failure and government intervention noted earlier focused the attention of many individuals on the opportunities offered by a pristine environment to create definitive tourism experiences such as swimming with whale sharks, surfing beaches, or touring rough through a national park. The initiatives taken by many of these individuals were successful, with many beginning to specialize and achieve economies of scale and diversity. The outcome was a widening range of services and experiences offered to an increasing number of visitors. Success bred success, and in two towns, Exmouth and Coral Bay, networks of businesses began to form that combined cooperation with competition in a continuing search for growth based on a common set of norms or practices. Supporting or facilitating networks then began to emerge in related services such as hospitality, shopping, car rental, and camping. As these individual businesses grew, establishing networks of relationships offering an ever widening and deepening assortment of services and experiences, micro and meso level marketing systems emerged that were embedded in higher level regional network marketing systems. Tangible evidence of a growing marketing systems infrastructure appeared as roads, facilities, accommodation and services were upgraded. Local and regional governance institutions began to form and influence business action. With these and related changes the social space occupied by individuals and businesses began to take shape, as incumbent coalitions faced challenge from the outside, and governance issues concerning self or external regulation and quality controls for service provision began to loom. These developments were strengthened by increasing concern amongst environmental, community, and aboriginal groups, which with their links to local and state wide political circles, hoped to create barriers to the increasing growth of the marketing systems that were emerging.

Something like the Ningaloo Reef experience is common to many if not all marketing systems in their early formative stage. The formation, growth, and adaptive change that occurs with marketing systems raises many questions. What are the underlying causal processes that lead to formation and growth of marketing systems? Why is it that marketing systems exhibit both regularity and diversity? What might lead to possible failure or breakdown in system structure, function or outcomes? Can the underlying causal processes be managed to contribute to social goals? The answers to these and many similar questions will have significant impacts on the human communities in which these systems are embedded.

This article suggests a new theory of marketing system formation, growth, and adaptive change that provides answers to the kinds of question raised above, both in general and in regard to individual marketing systems. The theory goes beyond life-cycle analyses of system development by drawing on evolutionary theory in the social and ecological sciences to propose new answers to questions relating to marketing system design and performance. It highlights the importance of transcending a narrow marketing point of view in responding to system wide concerns.

In outline, the theory argues that individuals participating in a marketing system are differentially endowed through evolution with a common set of capabilities, and react to or anticipate change in their local environment by exploring and rethinking the beliefs, behaviors, norms, values and social practices they are willing to accept. These changes in beliefs, behaviors and accepted practices at the individual and group level follow a generalized Darwinian process where variation, selection, and replication, over time, directly and indirectly bring change to a marketing system. Such developments provide the initial impetus to system formation, the insights needed to yield successful growth in parts or all of a system, and the bases for the interpersonal diffusion of the ideas needed for survival. The generalized Darwinian process just outlined is the first of a set of social mechanisms at work in a marketing system where individuals, groups, and entities interact with each other in ways that regularly bring about specific sets of outcomes. A minimal set of social mechanisms generating a marketing system includes (1) the generalized Darwinian evolution of beliefs, behaviors, and of norms, understandings, and institutional or social practices; (2) the mechanisms that lead to communication, shared understandings, and trust or at least cooperation among individuals; (3) those leading to the perceived benefits of value exchange, specialization, scale, strategic choice and risk avoidance; and (4) the mechanisms leading to the self-organization of networks and the resulting complex system ecologies.

Darwinian variation, selection and replication as well as the wider set of social mechanisms are also at work in the social space generated by participation in a marketing system. As a marketing system begins to form, this social space is, at first, disorganized. Participants jostle for some forms of control or influence, and, depending on the social skills and economic capabilities of those involved, incumbent and challenger sets begin to form, strategic action fields or arenas are generated, comprising the system participants and their relationships, and continue then to change in response to shifting external and internal environments. As field structure shifts, the power and competence of incumbents and challengers also changes, relationships are rethought, generalized Darwinian evolution is at work, and with this comes a continuing struggle for dominance through co-existence, cooperation, competition, coercion and conflict. As this struggle continues, governance issues come to the fore, with internal governance units implementing issues

such as self-regulation, quality provisions, and boundary disputes, and external bodies considering more formal regulation and legal controls. These issues become increasingly important as marketing systems and their associated action fields approach one or more limiting barriers.

These struggles take place and often drive change in the marketing systems linked with the action fields, when, for example, the actions resulting from the interaction of social mechanisms (including generalized Darwinian change in beliefs, behaviors and practices) and strategic action fields, broaden to include market innovation, widened assortments, modifications to distribution channels, changes to pricing and reconstructed flows of information and meaning. For the marketing systems linked with an action arena the resulting shifts in structure, function, and outcomes are further reflected in changed participant behaviors and in the emergence of semi-permanent institutions, infrastructure, artifacts and meanings, such as rules and regulations, conventions and norms, marketplaces, cash registers, brands, and symbols. These then become part of the immediate external and internal environments initiating changes in beliefs, behaviors and practices, shaping contexts for social mechanisms, influencing decision processes in action arenas, and generating further feedbacks that influence system growth and transformation.

The interaction of heterogeneous human endowments, the co-evolution of beliefs, behaviors and social practices, the workings of social mechanisms, the organization of one or more action fields and the marketing system that resulted in the Ningaloo Reef communities, is evident. Innovation in the form of ideas for action began quickly following the resort failure. These behaviors sparked growth in specialization and scale in at least two communities (Exmouth and Coral Bay), offering an ever-widening assortment of valued experiences to tourists. As business networks began to form, both cooperation and competition were evident, with moves made to self-regulate the growing numbers and behaviors of the tourism operators. All of these impacted the way the marketing system as a whole developed over time – in numbers, offer diversity, quality levels, pricing, and availability, as well as increasing access to infrastructure in the form of roads and other facilities, and an increasingly stringent regulatory structure. At each point in the development of the marketing system actions taken by participants were influenced by system change and in turn influenced the way the system changed in the future.

The theory just outlined draws on insights from cognate social sciences to identify and link three major theoretical frameworks to form one integrated theory explaining marketing system formation, growth, and transformations. The first of these is concerned with social mechanisms, including the pivotal co-evolution of beliefs, behaviors and practices (Runciman 2009), and their application to economic exchange in and between human communities (Cowen 1998; Dawkins 1976; Demeulenaere 2011; Hedström 2005; Hedström and Bearman 2009; Hedström and Swedburg 1998). The second focuses on the participants and their relationships which jointly identify what Fligstein and McAdam (2012) have called a strategic action field, defined as a "constructed, meso-level, social order" (p. 9), generated by the human activities, social skills and capabilities that conceive, plan and implement the actions occurring at every point and every level of a marketing system (Bourdieu 2005; Fligstein 2001, Fligstein and McAdam 2012). The third is concerned with the structure, function and outcomes of a marketing system, together with adjacent and facilitating marketing systems, and relevant social domains (Alderson 1965; Cox, Goodman, and Fichandler 1965; Fisk 1967; Layton 2007, 2009; Padgett and Powell 2012). These three theories, integrated and focused on the dynamics of marketing system formation, growth and possible transformations, constitute the mechanism, action, and structure (MAS) theory of marketing system formation, growth and transformation shown in Figure 1.

The discussion that follows begins with the concept of a marketing system, distinguishing among micro, meso, and macro levels of analysis, and identifying commonly occurring marketing system types. Since interest often centers on one or more specific marketing systems, the next section highlights the specification of the boundaries, structures, flows and outcomes of a focal marketing system or systems. The first of the three component MAS theories is then outlined with the identification and discussion of a minimal set of social mechanisms needed to understand the causal processes at work in the actions leading to formation, growth, and adaptive change in a marketing system. The second of the three component theories, which focuses on the strategic action fields associated with a marketing system, is then discussed. The actions of participants in their roles of incumbents and challengers and in governance or control are noted, together with the impacts these activities have on marketing system stability, transformation and crisis. Participant interactions, combined with the meso or macro social mechanisms linked with self-organization and emergence, lead to the formation of marketing systems. These are then considered in more detail, identifying structure, functions and outcomes and the creation over time of a marketing system infrastructure comprising both tangible and intangible elements. The importance of identifying adjacent or related systems and social domains is noted.

The next section applies MAS theory to an extended example to show how each of the components – the evolution of beliefs, behaviors and social practices, social mechanisms, action fields and the emergence of structure and function – combine to explain the formation, growth and transformation of a marketing system initiated by the changes in Chinese policy in the late 1970s. The article concludes by highlighting the contribution of MAS theory to an understanding of marketing system dynamics and the possibilities it offers for further research.

Specifying a Focal Marketing System

Layton (2007) defined a marketing system as

> "a network of individuals, groups and/or entities, embedded in a social matrix, linked directly or indirectly through sequential or

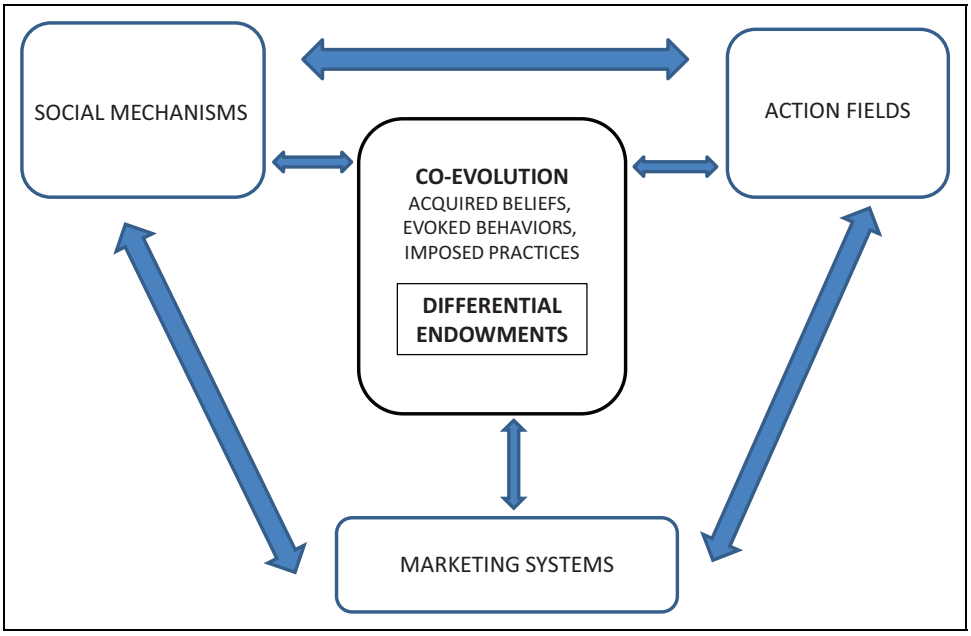

Figure 1. MAS theory—major elements.

> shared participation in economic exchange, which jointly and/or collectively creates economic value with and for customers, through the offer of assortments of goods, services, experiences and ideas, that emerge in response to or anticipation of customer demand" (p. 230).

In this definition, marketing systems have as their primary purpose the creation and delivery to customers of assortments of goods, services, experiences and ideas, enhancing the perceived quality of life of the communities in which the marketing systems operate as well as providing economic benefits for each of the system participants. In each marketing system, as it forms and grows, structural and functional modules begin to take shape: settings, logics and locations are established where assortments of goods, services, experiences and ideas are offered; specialized roles are created; functional flows of ownership, possession, money, risk and information are generated as trading activity increases; economic, political and related social networks form and re-form; governance becomes more important; and customer groupings emerge (Layton 2007). In all this activity the formation and growth of a marketing system reflects the social, cultural, political and economic life of communities, the physical environments in which communities are located, and the historical context or legacies that each community has inherited.

There are many different types of marketing system that often co-exist in differing layers or levels of economic activity. They include (1) horizontal systems (single or multiple market locations, contractual or franchise systems, multi-level systems, retail chains, internet markets and local or global enterprise networks); (2) vertical systems such as distribution channels and supply chains; (3) facilitating systems including logistics structures, information providers, agents, finance, and insurance; (4) composite systems combining horizontal, vertical, and/or facilitating modes; (5) hybrid systems combining private sector and public sector entities or agencies in areas such as health and higher education; (6) social marketing systems initiating, supporting, or countervailing issues of community concern; and (7) post-consumption marketing systems including re-use or recycling systems (e.g. second hand clothing, furniture) and disposal systems.

Many if not all of these structures can arise in legal, grey, or black market settings; sometimes working in formal or informal co-existence with related marketing systems; sometimes based on barter, or blends of cash or debt: and often achieve significant importance in the social life of a community.

While there are structural and functional similarities in marketing systems, each individual marketing system differs in detail. These differences reflect the specific circumstances of system evolution, together with the choices made by participants, interactions within and between adjacent or related marketing systems, and many other cultural, economic, historic and locational factors. In thinking about a marketing system it is essential, given this diversity in marketing systems, to identify with precision the individuals, groups, and entities that comprise the system or systems, and the institutions, infrastructure, artifacts, and devices that are part of the system setting and environment. It is only when this focal marketing system is clearly specified that the important social mechanisms can be identified, critical action fields and participant interactions considered, and the significant structures, functions and outcomes of the marketing system assessed.

Given these systemic complexities the issue now is how best and in what level of detail to specify the marketing system or systems that are of interest – the focal marketing system. As Storbacka and Nenonen (2011) observe, "firm, industry and

market boundaries are becoming increasingly permeable, fuzzy and fleeting'' (p. 241). Much the same could be said of the specification of boundaries to a marketing system. It is necessary for this to be done if there is to be any meaningful discussion of the structure, function and dynamics of the system. Inappropriate specification of a critical marketing system can often result in policy misjudgment and managerial error, the first of concern to macromarketing, and the second of concern in the framing of strategic choices for management.

Some guidelines can help in the process of conceptualization (Normann 2001). It is important to be inclusive as well as exclusive in an initial specification or framing of a marketing system that might be of interest. This goes beyond temporal, spatial and product limits to consider the individuals or entities that populate a focal marketing system and the value propositions they make in dealing with each other, the conceptual frames that limit the choices made, the interplay of power and influence in the networks they form, the ways in which these actors (which may themselves be marketing systems) interact through competition and/or cooperation, and the extent to which these interactions are complementary or supportive of a primary marketing system.

As Callon (1998) points out, this process has two dimensions – one emphasizing closure of the set of phenomena to be considered, and the other ''highlighting the omnipresence of connections with the outside world and the irrepressible and productive overflows which the latter encourage'' (p. 250). Both dimensions are important in choosing how far to go in recognizing the significance of meaning and symbol generation in the study of marketing system formation, growth and adaptation. Venkatesh (1999) in an exploration of the postmodern perspective in marketing, argued that ''we live in a world of symbols and signs'' (p. 167), where image production is displacing goods production, and where ''the institutionalization of all economic and marketing actions, especially within a historical, ideological and culturally constituted entity called the market, is reflected in the physical and symbolic aspects transactions as well as the rituals associated with the transactions'' (p. 162). A little later, Kadirov and Varey (2011) suggested that ''marketing systems are symbolic in essence and can be defined as spaces of marketplace meaning creation'' (p. 161), and noted that in designing desirable systems ''without proper meaning infrastructure, this policy exercise may be doomed to failure'' (p. 161). How far to go in recognizing the importance of meaning and symbol generation may depend on the context of the focal marketing system, and in particular on whether it operates in a pre-modern, modern, or post-modern setting. Composite, multi-level systems may present an important challenge, where meaning and symbol generation can differ among types of marketing systems in composite structures and between levels in a multi-level system.

These two dimensions also need to be kept in mind in considering their impact on the externalities that are important in macromarketing. Would the analysis be improved by shifting the boundary conditions to include more actors, agents or primary and secondary marketing systems where these are likely to act as competitors, cooperators, or in a facilitating role with a focal marketing system? This might be of particular importance where the emergence of alternative, informal, grey or black market systems is a possibility. It is also important to consider the level of aggregation and disaggregation that is appropriate to the analysis of interest – the need to think at least ''one level up'' and ''one level down.'' Underlying this choice is the idea that the successive layering or levels of social systems opens up new, often unpredictable, sometimes emergent, phenomena, not easily reduced to those observed at lesser or higher levels. The interplay of processes linking the micro level of individual transactions with meso level market structures and with macro level patterns establishes the dynamics of the marketing system both at each level or layer and as a whole. Before settling on an initial specification for a marketing system, it is helpful to consider the linkages between higher, more aggregated systems and between lower more disaggregated systems, and to explore the consequences of the choice of aggregation level.

A related consideration turns on the level of detail to be considered in the structure and function of a marketing system. Since each of the modular elements of a marketing system is interdependent, and conditioned by the social matrix in which they operate, it may be important not to limit consideration to one or more modules or levels. This is a particular challenge to legislators seeking to remedy one aspect of the functioning of a marketing system, while ignoring how it is not possible to change just one thing. As Easterly (2006) points out, in his discussion of Planners and Searchers in the allocation of aid programs in developing countries, aid is often ineffective as it is too often offered without regard to the specific ways a marketing system of interest works in a community. He notes, ''the rich have markets, the poor have bureaucrats'' (p. 165), with all their accompanying rigidities.

No matter how carefully these choices are made, the chosen limits will be challenged by internal and external change in any or all of the layers or levels of a marketing system. Internal change might be the unexpected result of complex system non-linear dynamics, or the evolutionary processes initiated by accident, invention, innovation, or learning. External change might be a consequence of natural or corporate catastrophe, the impact of reaching limits to growth, or higher (or, lower) level systems forcing change in a focal system. In each case, a fresh look at the defining boundaries of a focal marketing system will be needed. Normann (2001) details the essential nature of this process in his discussion of the need for reframing business thinking in the face of dramatic change in business landscapes, if new reconfigurations of business are to emerge.

In the end, there is no one right way of specifying a marketing system. There are many ways, not all however equally sound, and it is the few that provide useful insights that should form the basis for policy and planning choices. Finding these few useful specifications is often an iterative process of trial and error.

The Mechanisms, Actions and Structure (MAS) Theory

The mechanism, actions, and structure (MAS) theory integrates theoretical insights from analytical sociology, field theory, and from macromarketing systems theory to explain the causal processes underlying marketing system formation, growth, and adaptive change. MAS theory draws on a common but heterogeneous set of human endowments and relationships and begins with the dynamic co-evolution of behaviors, beliefs, and social practices that together combine to change the way that individuals, groups and entities act in response to or anticipation of external events. While the co-evolution of beliefs, behaviors and practices is singled out as a principal driver of system change it is also the first of four primary social mechanisms – co-evolution, trust, exchange, and emergence – that have their origin in analytical sociology. Field theory, linked with organization and social movement theory, is concerned with the strategic behaviors and relationship networks of the individuals, groups and entities that comprise a marketing system. Marketing system theory identifies system structure, function and outcomes. Together, these elements of MAS theory combine to show how and why economic exchange in and between human communities leads to formation, growth and adaptive change in marketing systems.

Social Mechanisms

This theoretical framework centers on the concept of a social mechanism (Demeulenaere 2011; Hedström 2005; Hedström and Bearman 2009; Hedström and Swedburg 1998), which Hedström defined as ''a constellation of entities and activities that are linked to one another in such a way that they regularly bring about a particular type of outcome'' (Hedström 2005, p. 11).

Hedström's (2005) work in analytical sociology builds on that of leading sociologists such as Elster, Boudon, Schelling and Coleman, all of whom were concerned with the nature of explanation in considering complex social phenomena, and share a commitment to ''precise, abstract, realistic and action-based explanations'' (p. 12). Hedström (2005) argued that it was not enough to understand why individuals act the way that they do; in trying to understand social phenomena, it is essential to explain ''why, acting the way they do, they bring about the social outcomes they do'' (p. 14). In doing so, he emphasized the importance of the micro-macro links. He looked for structure, transparency, and autonomy in the construction of a social mechanism, grounding it in a cognate discipline, separate from the issues being considered. He envisaged a complex web or hierarchy of social mechanisms as component elements in the workings of a given social mechanism, with infinite regress avoided through grounding in external events or related disciplines.

Although in a metaphorical sense the idea of a mechanism implies a simple regularity in converting inputs to outputs, what Hedström had in mind was more akin to a statistical regularity. The metaphor also tends to hide the time lags that exist in each part of a social mechanism. They are not instantaneous and in most cases require time for the evolutionary and social interactions to work in forming a social mechanism. Failure is a possibility and diagnosing failure in one or more of the social mechanisms underlying the structure and function of a marketing system is an important step in identifying marketing system failure.

Figure 2 sets out the primary and secondary social mechanisms considered here as a minimal set needed for a basis for an explanation of marketing system formation, growth and change. The central box identifies the differential endowments that people, groups and entities bring to each of the primary and secondary drivers. These endowments have their origin in the long evolution of humans, where survival mattered perhaps above all. Communication, language, signs and symbolic meaning are important elements in this human endowment, together with a facility in social skills such as empathy and an understanding and ability to work productively with others, an ability to learn and acquire new and deeper levels of skill, a willingness to innovate, invent and create new ways of doing things, an interest in thinking and planning for anticipated futures. Although most people possessed these skills, not everyone was the same and there were differential endowments and capabilities in every community. Gender, for example, was a key factor in skill development, as was geographic location, religion and culture. Differential access to resources led to differences in family and community structures, roles, and power and the flow of opportunities was rarely the same for everyone in a community.

The first set of primary social mechanisms, labeled co-evolution, is critical to the evolution of marketing systems at every level and of every type. In Figure 2 it appears as a central element, working with the differential endowments brought by individuals and entities to create and drive change directly in the marketing system, and indirectly through impacting behaviors amongst individuals and entities engaged in forming field relationships. The co-evolution of beliefs, behaviors, and practices works at all levels of a marketing system, using generalized Darwinian sequences of mutation, selection and replication (Dennett 1995; Runciman 2009; Wilson 2012) to respond to endogenous and exogenous change in system environments. In each of these three areas, the evolutionary sequence of mutation, selection and replication, generalized a little to multi-level parallel sequences of innovation, competition, and diffusion, yields on-going, unpredictable change at different levels and in different parts of a marketing system. Evolutionary sequences in ideas, beliefs, and memes drive, for example, innovation in technology, in organizational structures, and in the institutions of a community or society. Behaviors of individuals, groups and entities are also driven by similar evolutionary sequences of innovation, competition and diffusion to form, for example, coalitions or political groupings that may or may not survive. The norms, values and practices that are accepted by a community are also subject to evolutionary pressures reflecting internal and external environmental

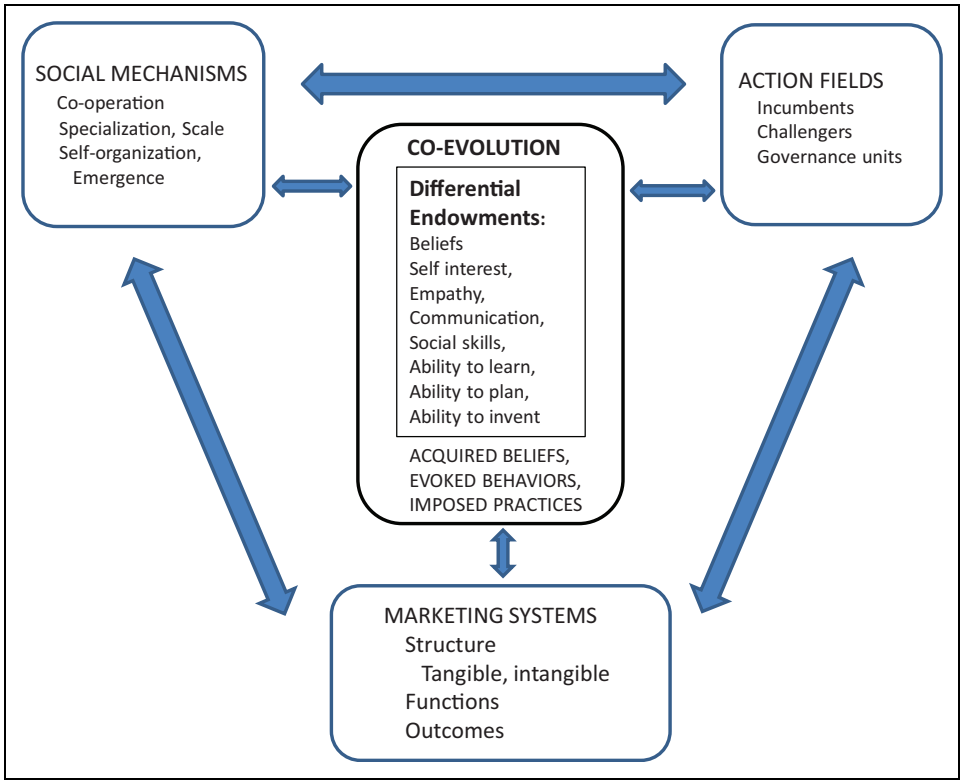

Figure 2. MAS theory—mechanisms, action, structure.

shifts. These changes are not instantaneous but occur over time with each evolutionary sequence proceeding at its own pace, influenced by and influencing related evolutionary processes. The evolution of behaviors and ideas often proceeds very quickly, as in fashions, financial bubbles, and the Arab Spring, and today are enhanced by social media. Evolution in the practices accepted by most system participants can take much longer, particularly when culture shifts are involved. The end result of these multi-layered, deeply fragmented co-evolutionary processes is increasing diversity in the infrastructure and in each of the elements of a marketing system, which in turn exhibits path dependency, discontinuity and localized interactions, all pointing to increasing system complexity.

Moving outward in Figure 2, the first of the three primary social mechanisms concerned with group structure and behavior, identifies the activities and linkages required for the formation of trust or at least cooperation based on acceptance of a set of shared understandings (including difference making) amongst the otherwise self-interested individuals found as participants in a marketing system. Three specific or secondary social mechanisms are identified. The first is concerned with the formation of a relevant set of shared understandings, in effect a social contract (Binmore 2005), which makes possible the processes needed for the everyday exchange of economic value. A second social mechanism draws on the work of many scholars in exploring iterated Prisoner's Dilemmas to establish the ways in which cooperation could emerge from dealings between self-interested individuals. Nowak and Highfield (2011) identified five such patterns – reciprocity, indirect reciprocity, kinship, networked relations, and multi-level or group selection – which provide a basis for both social contract and of cooperation. The third of the social mechanisms related to cooperation is concerned with the signaling or communication processes needed for economic exchange to occur. While this is based on information theory, it also draws on the literature of symbolism and meaning (Kadirov and Varey 2011; Venkatesh 1999).

The second set of social mechanisms concerned with economic exchange identifies secondary mechanisms in the exchange of economic value, specialization, growth and scale, strategic innovation, and risk management. These mechanisms working together generate transactions leading to the discovery of the benefits of exchange, including the possibilities arising from comparative advantage associated with geographic or locational resources and individual capabilities, the value created by specialization, the benefits of increasing scale and scope in situations of growing demand, the important role of strategic innovation, and the need to carefully consider issues of uncertainty avoidance. The central drivers of these five mechanisms lie in the theory of economic exchange, in a deep understanding of the nature and behavior of the firm, in the economics of firm and network growth and innovation, in the management of risk and uncertainty, and in the management of strategic and tactical innovation.

The third set of mechanisms, emergence, is concerned with the way in which self-organization in complex systems generates patterns leading to the evolution of norms, conventions, rules, structures and institutions. These emergent systems are

found at the micro, meso, and macro system levels, form at different rates in differing micro and meso systems, and interact with changing immediate and distant environments at each level, to generate system transitions between states of growth, crisis, collapse and renewal at each level (see Table 1). Both secondary mechanisms have their origins in the mathematics of complex systems and in ecological science.

Co-evolution, and the three primary social mechanisms concerned with group structure and behavior, together with underlying human endowments, provides a causal explanation of the regularities found in the formation and growth of marketing systems. Where a marketing system is seen as not working as well as could be expected, a first step is often to consider whether all the primary and secondary social mechanisms are contributing as they should. Sometimes, for example, it is the processes of co-evolution that are blocked; sometimes shared understanding is missing; sometimes specialized roles are unfilled; and sometimes a system transition is failing.

The multi-level interaction of these four sets of social mechanisms may also help to understand how and why emergence is such an important characteristic of marketing systems. In particular, an emergent, self-organized system or structure at one level becomes institutionalized in practices imposed at a lower level. Examples include emergent physical location and layout for a marketplace, the replacement of bargaining with fixed price schedules in local markets, or fashions impacting everyday clothing practices. Here the possibility of downwards causation, often controversial in thinking about emergence (Bedau and Humphreys 2008), arises from responses by core participants to perceptions of higher level structural or functional change, that are then reflected in the evolution of institutional practices. The action fields considered below also condition these responses.

Action Fields

This second framework brings a marketing system to life. Marketing, markets, and marketing systems are, above all, the product of human action, where individuals, groups and entities interact as participants in economic exchange. This view of a focal marketing system focuses on these participants and their actions as they jostle for individual advantage in the social world defined by the marketing system. In this constructed social order, ''the complex dynamics of emergence and institutionalization, stability and change, and rupture and settlement'' (Fligstein and McAdam 2012, p. 6) impact marketing system structure, function and outcomes, and are the product of the social mechanisms that drive the actions of the participants as they react to or anticipate environmental change.

Once the marketing system or systems of interest has been identified, boundaries established (in a preliminary sense at least), adjacent or related marketing systems noted, and the level of aggregation or detail selected, the constructed social world associated with the participants in a marketing system comes into view. The marketing system provides the economic, cultural and institutional context for an arena where autonomous (in part or in full) actors/participants, including individuals, groups and entities, act and react with each other in the pursuit of perceived advantage. This arena is an example of a field, domain, sector or organized social space (Bourdieu 2005; Fligstein 2001; Fligstein and McAdam 2012). As the focus now shifts to the participants in a field and their actions it is essential that the participants be clearly identified, and their attributes specified, including network positioning, at an early stage in the framing analysis. In the words of Latour (2005, p. 11)

> ''you have 'to follow the actors themselves', that is try to catch up with their often wild innovations in order to learn from them what the collective existence has become in their hands, which methods they have elaborated to make it fit together, which accounts could best define the new associations that they have been forced to establish.''

Just as marketing systems are nested or layered within higher or lower level marketing systems, so too are the associated action fields. Environmental turbulence can and does occur at all levels of the action fields associated with nested marketing systems. Participants react to or anticipate such environmental turbulence in their dealings with each other. Their interaction yields a dynamic critical to the focal marketing system and its associated action field. An understanding of these interactions is particularly important for the rich networks linking adjacent systems of differing types – including vertical, horizontal, facilitating, composite, hybrid, social and post consumption systems. As Padgett and Powell (2009) have pointed out, linkages often extend to other social domains, including political, religious or cultural institutions, where individual participants fill different roles and are able to exercise political or other power in the marketing system.

The interaction between human agency and marketing system structure (Giddens 1984) in a layered network of systems and associated fields is critical to an understanding of system change processes. Participants, including individuals, groups and entities, possess widely different sets of social skills, competences and positional power. As they struggle within a field to establish localized dominance, the choices made in response to perceived opportunities contribute to an on-going co-evolution of behaviors, beliefs and practices that in turn re-shapes the field and the marketing system. Depending on the time lags involved, the result is often a low-level equilibrium of incremental but continuing change, punctuated by occasional episodes of high level transforming change, or as sometimes put, episodes of creative destruction, with legacy structures often impeding further change.

The ways in which participants in an action field engage with each other are shaped by an overarching social and cultural environment and, perhaps more importantly, by expectations arising from the social mechanisms at work amongst field participants. These include shared understandings of the way economic exchange happens, the growth of trust or cooperation, the ongoing signaling of information and of meaning, and an appreciation of the how and why of economic growth in

Table 1. Social Mechanisms—Primary and Secondary Mechanisms Interacting at the Micro. Meso and Macro Levels of Marketing Systems. *Starting point*: The formation of a marketing system in human communities begins with an identification of individuals, groups and entities that comprise the system or systems, the existing economic, cultural and social conditions, and the infrastructure, institutions and artifacts that are part of the system environment. Adjacent human communities and their economic, cultural and social domains need also to be considered for possible or potential linkages.

Co-Evolution – A primary social mechanism that generates generalized Darwinian evolution in behaviors, beliefs and practices in human communities (Runciman 2009). It begins with perceptions of external or internal change in a human community initiating the co-evolution of either or both of culturally acquired beliefs and socially imposed practices that then in turn evoke behavior changes on the part of some or all participants.	
Behavior	Individual behaviors evoked in response to information from the immediate or distant environment, from changes in culturally acquired beliefs/memes, or from changes in socially imposed practices; which are then competitively tested in relevant environments, and either dropped, or if found adaptive, diffused through social networks (Dennett 1995; Runciman 2009; Wilson 2012).
Beliefs/memes	Ideas, beliefs, preferences (memes) held by Individuals (groups or entities) may vary as individuals respond to Imitation, learning, recombination and invention, transmitted through communication networks; and if found adaptive by the individuals, the ideas, beliefs, preferences (memes) are updated and diffused through social networks (Arthur 2009; Blackmore 1999; Dawkins 1976;; Richerson and Boyd 2005; Watts 1999).
Practices	As individuals, groups and entities within a community perceive change emanating for example from new technologies, infrastructure, conflict or disaster, or from self-organized emergent patterns, the benefits and costs arising from collectively held laws, rules, and conventions/norms may be seen to shift. Differing perceptions lead to competition within and between groups of individuals, creating a group dynamic that may induce groups within a community to switch from one set of conventions to another. This institutional change, shifts incentives to participants, changing behaviors in response to changes in allowable or imposed practices (Bednar 2009; Bowles 2004; Greif 2006; Mesoudi 2011; North 2005; Richerson and Boyd 2005).
Cooperation – A primary social mechanism generating shared understandings and cooperation amongst members of a human community.	
Shared understandings	Generating and updating in a community, overall or in relevant segments, a set of shared understandings or a social contract that is stable, efficient and fair (Binmore 2005; Skyrms 1996, 2010).
Cooperation	Identifying and sustaining cooperation in human communities through direct reciprocity, indirect reciprocity, relatedness, network reciprocity, or multilevel or group selection (Axelrod 1984; Bowles and Gintis 2011; Gintis 2009; Nowak 2006, 2011).
Signaling	As social networks form and the information flows needed for coordination in teams and cooperative groups become more complex, a mechanism for the invention and learning of increasingly complex signals with varying reliability and meaning is essential (Gintis 2009; Luhmann 1995; Podolny 2005; Skyrms 2010).
Scale – A primary social mechanisms that generates growth and diversity in economic exchange in a human community.	
Exchange	Shaped by the setting and by community norms and rules, participants move through search, identification, negotiation, to completion, forming potential relationships, and incurring costs and benefits to themselves and to the community (Camerer 2003; Cassady 1974; Houston, Gassenheimer, and Maskulka 1992;; Hurwitz and Reiter 2006; Maclaran et al. 2009; Raiffa, Richardson, and Metcalfe 2002; Vargo and Lusch 2004; Williamson 1981).
Specialization	Individuals discover differential capabilities and resources and identify market niches that allow specialization to exploit comparative advantage in economic exchange, leading to increasing diversity in goods, services, experiences and ideas (Page 2012; Porter 1985).
Scale	Individuals differentially identify generalized gains from scale and scope leading to increases in economic power and inequality (Bowles 2004; Chandler 1990; Landes 2010).
Strategic choice	Individuals and entities exercise deliberative, strategic choice in situations where options are risky, environments are complex and turbulent, and learning from others and from experience may be critical (Ansoff 1984, Christensen and Raynor 2003; Dixit and Nalebuff 1991; Gintis 2009).
Uncertainty Reduction	Individuals seek to reduce uncertainty through the introduction of norms, conventions and rules; through alliances; through diversification; through insurance; through avoidance or deletion (Akerlof and Shiller 2009; Knight 1921; North 2005).
Emergence – a primary social mechanism that generates structure and dynamics in complex exchange networks.	
Self-organization	Random drift, preferential attachment and similar mechanisms, and external growth, lead to Increasing size and complexity of social networks, specifically in exchange networks. This, combined with local interactions, generates self-organized and persistent patterns in the individuals, groups and entities making up each network, that are recognized and accepted by some or all participants, and may be characterized as emergent (Bedau and Humphreys 2008; Benkler 2006; Holland 1998; Kirman 2011; Mantzavinos 2001; Newman 2010; Padgett and Powell 2012; Sawyer 2005; Schelling 1978; Telser 1987).
System transition	External and internal structural and functional changes, including governance, arising from the dynamics of transitions between the complex socio-ecological system states of growth, maturity, creative destruction, renewal. Key system attributes governing state transitions are connectivity, growth potential and resilience or brittleness (Acemoglu and Robinson 2006; Diamond 2005; Gunderson and Hollings 2002; McAnany and Yoffee 2010; North, Wallis, and Weingast 2009; Sornette 2003; Tainter 1988; Turchin 2006; Zolli 2012).

scale and scope. As relationships firm up, networks begin to form, and with their formation and growth, self-organized patterns may emerge in the action fields and in the structure and functioning of a marketing system. Beginning with heterogeneity in participant endowments, the interaction over time of social mechanisms and action fields where participants engage with each other competitively or cooperatively, often leads to increasing inequality in individual outcomes and in positional power. Fligstein (2001) highlights this process, suggesting that participants tend to fall into three categories – incumbents, challengers and governance units. Incumbents, who benefit from the current arrangements, dominate the action field and seek to preserve stability. Challengers, who benefit less, may strive for a crisis or shift opening up the incumbents to entrepreneurial initiative. Governance units such as regulatory agencies, ratings agencies, commercial associations, and voluntary groups, tend to form in response to pressures by incumbents or challengers. Incumbents seek stability, as this encourages investment, and will take almost any action that is not formally proscribed to maintain stability. Challengers look for change that might work to their advantage, and will work to bring external and internal changes to the point where stability is in danger and where forces, such Schumpeter's creative destruction, can be given free rein. Amongst the governance units, institutional entrepreneurs may enter the field especially in response to major external crises such as those associated with sustainability. Separate from, but included in higher-level systems are state entities with power to regulate or otherwise control the actions of system participants. This is the context where the work of Padgett and Powell (2005) is of major interest, tracing the ways in which shared membership of multiple domains such as politics, religion, kinship or ethnic origin can impact the original system settings and activities.

Major crises can often arise from the expanding utilization of common pool resources arising from the growth of marketing system structures and actions. Where this occurs, more participants may be drawn into the governance group, shifting power within the action field, as incumbents and challengers find common ground. The effective management of common pool resources to overcome "the tragedy of the commons" (Hardin 1968) has been the focus of the outstanding work of Ostrom (2005) and her colleagues over many years. Ostrom and colleagues developed a framework called Institutional Analysis and Design (IAD) to provide a common language for thinking about the management of such resources, where many centers of decision making (a polycentric context) were usually involved. The IAD framework has much in common with the analysis of action fields proposed by Fligstein and others in that it centers on a specific action arena where actors, positions or roles, and available actions are identified, together with the relevant information flows, and control options all interacting to yield outcomes, and all with regard to biophysical conditions, attributes of the community involved and the rules-in-use. Ostrom's work looked at many hundreds of common pool resource management situations, across the world, in ecological, community and economic settings, using the IAD framework to identify a set of design principles or best practice outcomes. These are noted in her Nobel Lecture (Ostrom 2010), which then goes on (p. 433) to report studies of the attributes of the micro-situations likely to affect the levels of cooperation achieved.

While the work of Fligstein and Ostrom has much in common in an exploration of the action fields linked to a marketing system, the two approaches differ in that Fligstein and McAdam (2012) emphasize an existential approach to the identification and analysis of an action field, while Ostrom and others tend to take an instrumental approach. The two are complementary, as the first looks at the action field as a whole and the second looks to specific situations where a common pool resource is in danger of exploitation.

As noted at the outset, this second approach to a marketing system brings it to life, focusing on the participants and their actions as they jostle for individual advantage in the constructed social world defined by a marketing system. The third way of looking at a marketing system, that now follows, is concerned with the growth or emergence of structure, function and outcomes, with a specific interest in the physical, material and symbolic artifacts and devices created by and invested in as a consequence of marketing system operations. These include physical marketplaces, structures and facilities, as well as material devices such as cash registers, together with assortments, brands, and the consumption systems where goods, services, experiences and ideas find their end users.

Structure, Functional Flows and Outcomes

Marketing systems of all types comprise a common set of structural elements or modules (Layton 2009) that emerge from collective human action, initiated and driven by social mechanisms, and worked out in social arenas, as participant individuals, groups and entities interact as sellers, buyers, and sometimes as controllers or concerned onlookers. These structural elements are (1) the settings, procedures, logics and conventions at work in the economic exchanges characterizing the marketing system; (2) the systemic, often specialized, roles that emerge and are filled by agents, who may be any or all of individuals, groups and entities; (3) the social and economic networks that link these agents over time and space; and (4) the ways in which governance is established and maintained within the system. Participant activity in economic exchange then leads to an often increasing diversity of goods, services, experiences and ideas that make up the assortments offered by a marketing system to satisfy the needs, interests and preferences of customers within the system. Linked with these flows of goods, services, experiences and ideas, offered and available, are the critical flows of ownership, possession, finance, risk and information that are generated by the transactions that take place. The immediate outcome of the operations of a marketing system is the match achieved between available assortments and those desired by customers. Longer term outcomes depend on the closeness over time of this match, the benefits that flow to each of the system participants, the presence (or absence) of

significant externalities, the achievement of distributive justice, the resilience of the marketing system to external change, and, in the end, the sustainability of the system in its environment. Depending on the longevity of the marketing system, the external changes that it has undergone, and the extent of investment in the marketing system, a significant tangible and intangible marketing infrastructure is likely to have emerged in the settings, places, devices, structures and buildings, as well as in the meanings, understandings, norms, rules and laws that participants expect and respect. The structures, functional flows, outcomes and the resulting marketing infrastructure are the outward manifestations of the causal processes and competitive jostling amongst participants, which are identified in the other two frameworks. Looking back in history, these artifacts together with written records are often all that remains to reconstruct the marketing system and its likely impacts. Looking ahead to what might be, a marketing system needs to be considered not just in terms of structure, functional flows and outcomes, but also in terms of the drivers of collective action and the interactions amongst participants in the relevant social arenas.

Each of the structural elements changes over time. Settings and logics, meanings, norms and rules evolve over time as participants find and exploit opportunities, sometimes failing, sometimes succeeding, and all the while learning from both sets of outcomes. Market stalls give way to shop fronts, ''mom and pop'' stores to supermarkets, customer service to self-service, and bricks to clicks. Roles also change over time, with old specializations falling away, and new ones emerging. General wholesalers find themselves replaced by in-firm marketing departments (see Porter and Livesay 1971), distribution channels by global supply chains, ''seat of the pants'' decisions by increasingly specialized advisers. Flows become more complex, with ownership and possession sometimes blurred, credit replacing cash, and big data in place of simple facts. Networks also become more complex and multi-dimensional in nature. Assortments broaden and deepen, becoming more diverse, and through package, brand, price and locational variation, add service, experiences and ideas to often mundane offers. Governance often becomes increasingly costly and controlling, and customers become more knowledgeable, more influential, more independent in their use of information, and more vocal when dissatisfied. The co-evolution of beliefs and behaviors, as well as institutional practices on the part of both sellers and buyers, is evident in all of these changes.

The timing of these changes is also uncertain and may sometimes lead to system failure. The social mechanisms underlying collective action do not operate instantaneously but take time to work out amongst the relevant communities. Beliefs and behaviors evolve, sometimes quickly and often slowly or not at all; trust takes time, especially amongst strangers; networks grow, but at very different rates; self-organization may or may not take place; participant power struggles in an action arena mat take forever; and decisions in and for a marketing system will often be uncertain, irrelevant or just plain wrong. The net effect, especially in complex marketing systems where participating entities may also be marketing systems, is uneven development and, sometimes, corruption and failure. Understanding the source of these difficulties is often critical in managing marketing systems (Layton 2014).

While each of the structural elements might differ in development from one marketing system to another, each element will usually be present. The efficiency and effectiveness achieved by a marketing system will depend on each element working closely with each other in a coordinated manner. Not only must this be the case for any specific marketing system to be viable, it must also be generally true for the systems comprising the higher and lower level networks of which a specific or focal marketing system is a part. It is this need for multi-level coordination that creates many of the problems of diagnosis and design that have perplexed planners and policy makers in the past and the present when confronted with systemic failure. It is also at the center of many of the concerns expressed by macromarketing scholars looking, for example, at multinational companies in emergent economies, questions of sustainability, usage of common pool resources, and issues surrounding distributive justice.

The Hubei Longlake Freshwater Fish Marketing System

Over the years 1978 to 2001, annual fishery output in Hubei Province, that had seen little change for many years, grew from 110,000 tons to 2,400,000 tons. This remarkable change was a direct consequence of decisions taken by the Central Committee of the Chinese Communist Party in December 1978 overturning a longstanding obligation to class struggle in favor of a commitment to socialist modernization (Coase and Wang 2013). The Committee noted that agriculture had been underfunded for many years, that profits generated had been used to subsidize industrial production, and that as a result, productivity was low. About the same time, there were signs that farmers in some localities were taking matters into their own hands, persuading cadres to allow private production, in excess of state quotas, to be sold in local market settings. This combination of ''top-down'' and ''bottom-up'' initiatives led over the next few years to decollectivization and the introduction of the ''household responsibility system.''

Prior to the economic reforms, the State-owned Longlake Fishing Farm (LLFF), under quota for State redistribution, controlled commercial fishing in the Longlake, one of the largest in Hubei. Private fishing was possible only outside the time allocated to work in or on a collective. Production for sale was not allowed, although presents or barter exchange among friends and neighbors was not uncommon. For many years this had been a sustainable equilibrium (Wang 1999, 2001, 2005) where the distribution of freshwater fish in the Longlake area to towns and villages near the lake was done through a purposeful marketing system under state control. It distributed freshwater fish to collectives and on to individual households, and through micro, rudimentary, private autarchic systems where isolated individuals and households engaged in localized barter or gift

giving. This was a stable systems structure that was undone primarily by external political change. With this change the freshwater marketing system centered on Longlake broadened to include private fishing as well as the LLFF, which then became the focal system and entered a first phase marked by the formation and growth of isolated village marketing systems beginning to connect with each other. The key driver was the need for each family to find the cash required to replace the provisions formerly made by the collective and to gain access to the diverse assortments of goods and services now needed to meet household and commercial requirements.

The changes that occurred as the "household responsibility system" (HRS) was introduced towards the end of 1978 have been set out in some detail by Kate Xiao Zhou (1996) and Ning Wang (1999, 2001, 2005). Zhou points to the critical role that farmers played in their entrepreneurial response to the HRS, in providing a lasting foundation for sustained economic growth. Wang's account draws on insights from the new institutional economics and from social systems theory to understand the changes in economic structure that occurred and in particular the role of emergent private property rights. The discussion that follows is based on Wang's detailed and insightful work, together with the work of Justin Yifu Lin (1987) outlining the household responsibility system, Zhou (1996) on "how the farmers changed China", and that of Nee (1989, 1992, 1996) on the theory of market transition from redistribution to market exchange.

As Lin (1987) notes, the household responsibility system, which shifted responsibility for production from collective teams to individual farmers, who could sell whatever was left over from an output quota and taxes, was introduced secretly, and later, with the blessing of local authorities, introduced to production teams in Anhui Province. The yields that resulted in these locations were far better than those that had been achieved elsewhere and the news spread rapidly. By 1981, 45% of production teams had switched, and by the end of 1983 over 94% of Chinese rural households had adopted the HRS. Lin comments that the HRS was worked out among farmers, initially without the knowledge and approval of the central government. This was the origin of the entrepreneurial capitalism that drove rural, and later, urban economic growth in China during the decade of the 1980s (Huang 2008).

For the rice farmers living in villages around the Longlake the economic and social consequences of these changes were far-reaching. While leasing of a paddy field from the local cadre was a possibility, it was not certain and in any case would yield an insufficient income for a family. Many villagers then began to think of fishing as a way of making some money but this was not an easy option. Boats, nets and other fishing gear needed to be prepared for much greater usage, storage, and transport had to be considered. Who to sell to and when was not always obvious and would certainly have to go beyond family and friends. Cash was going to be necessary as obligation and debt were not likely to be enough. Gradually micro marketing systems began to form in each village, as ideas on how to cope began to circulate and those that seemed to work were identified. Some individuals (often the cadres of an earlier collective) began to emerge as leaders, shared understandings within each community were established, cooperation built around specialization and scale began to form, and sales opportunities were identified. In each village, both around and near the lake, rural petty commodity markets (Wang 2005, p. 73) formed on beaches, roads, streets, and village centers. Peasants brought anything that was saleable to these markets in order to generate cash for household needs and for small business investment. The assortments of products and services offered in this way broadened and deepened over time as specialization based on acquired skills and local capabilities took root. Gradually micro family level marketing systems began to coalesce into village systems, and then into small, localized interconnected marketing systems. Facilitating marketing systems also began to form providing transport, storage, security, finance, information, and middleman services. These and related changes were brought about by the actions and in particular the social skills of the individuals caught up in the action fields associated with each of the marketing systems being formed. These individuals began to organize each action field, energize the social mechanisms involved in cooperation, value exchange and emergence, and in the end become the incumbents, challengers and governance units in each action field. The results of their efforts can be seen in the tangible and intangible evidences of emerging village marketing systems – in market locations and facilities, in the transaction logics accepted as norms, in assortment diversity, in specialist roles, in the functional flows that sustain a marketing system, in the formation of networks, and in the system outcomes of trade volumes and customer satisfactions.

The major urban market was in the regional city of Jingzhou, south of the Longlake, on the Yangtze River. With the influx of local produce, vegetable and food markets formed and/or grew in Jingzhou, and in local towns and villages. Many of these markets were outdoors, often on street sides, where informal bargaining took place between buyers and occasional sellers. Where these markets grew in physical size and volume, local authorities stepped in and market administrations were established, funded by site fees and taxes on sales. Getting fresh fish to a marketplace at a profit was challenging. The fish had to be kept fresh despite a lake and land journey, often of many miles; transport was lacking; and price information was unreliable and changing. As the volumes of fish caught increased these pressures became more intense as supply outran demand from local villagers.

It was not long before a vertical marketing system began to form linking lake and pond fishing providers with city and town consumers. Spot markets were generated on the beaches where the fish were landed. At these markets "moving middlemen" bargained aggressively for much of the catch and then transported it to a market. Much the same happened with the larger pond fisheries. Moving middlemen became specialized – sometimes in the locations where they bought fish, sometimes in the species or size of fish, and sometimes in the markets where they sold. They played important system roles in

managing time and distance effects, and in the flow of information (although many producers doubted the truthfulness of the prices mentioned). Although repeated dealings between traders were common, Wang notes that there was little personalistic trade or clientation (Wang, 2005 p. 42). At the market, ''sitting middlemen'' or retailers bought from the ''moving middlemen'' and sold to consumers.

While all this was happening, the State sector also changed, as distribution through collectives lessened in importance. Legacy elements survived especially dealing with older more traditional people. However, the economic reforms that rewarded individual initiative on the part of the fishermen, also changed the way of life for the managers of the State Fishing Farm (LLFF) where above quota catch could be sold in the market and the cash kept aside in a ''private coffer'' supplementing the base salaries paid by the State (Wang 2005, p. 74). The LLFF increased its fishing and took steps to enforce its legal rights to the Longlake fishing grounds. While in the early reform period these two systems were able to co-exist, as competition intensified, lake resources began to dwindle and a ''tragedy of the commons'' began to loom. In an analysis of the marketing system, the critical frame now shifts towards the participants and their actions. This shift marked the end of phase 1 in the formation and growth of the freshwater marketing system centered on the Longlake.

The problem in part goes back to a conflict between social and state norms or understandings. For generations, villagers around the lake had been taught that ''live off the mountain when you dwell close to a mountain; live off the lake when you live close to a lake.'' As one private fisherman put it, ''We have been fishing here for generations. Longlake is our ''bag of rice given by Heaven. No one can take it away from us'' (Wang 2005, p. 78). On the other hand, the State owned the rights to fish in the lake and had passed this through to the LLFF. Legal rights and customary rules were clearly opposed, with participants in both the state and private marketing systems standing up for what they felt were their rights. At this point, thinking of the focal system in terms of an action arena becomes critical.

The LLFF began to patrol the lake, warning fishermen and, when this proved ineffective, confiscating catches and destroying nets. Fishermen retaliated by forming ''gangs'' which were able to fend off attacks by isolated patrol boats. Enforcement costs increased dramatically, and there the matter rested in an uneasy standoff. This is an example of conflict arising as the LLFF and fishermen struggle for ''incumbent'' status within an action field.

By the mid 1980s fishing stocks had dwindled and private fishermen were leaving the lake and converting irrigation channels, ditches, and reservoirs to pond fishing. Some villages were embarking on pen fishing where small sections of the lake were fenced off and restocked with fish. At the same time, LLFF was also actively restocking the lake with fish fry. This made for a rethinking of property rights to fish, as both the private and the state-owned systems were beginning to restock, with a growing awareness that this did indeed change things considerably. Both parties had some ownership of the fishery resources they were creating. This created a new set of shared understandings where the old norm of ''living off the lake'' was replaced with ''fishing in the lake is like stealing'' (Wang 2005, p. 88). It also began a transformation of the focal marketing system as beliefs, behaviors, and practices (including redefinition of property rights) co-evolved within an increasingly complex marketing infrastructure. For the time being at least the sustainability crisis generated by overuse of a common pool resource had been averted. In this second phase, the action fields generated by the public and private fishing marketing systems were the primary drivers of change in the marketing system. The risk of system collapse had been lowered by shifting norms and shared understandings, by an innovative response amongst fishermen shifting to pond farms, and by cooperation amongst village families.

By the end of the 1980s, in a third developmental phase, pond fishing had become the dominant mode of private fishing and was largely in the hands of family owned enterprises. A changed set of shared understandings, behaviors, and practices had evolved. Pen fishing was growing, and due to the investments required, was largely run by village enterprise. A Fishery Law in 1987 greatly strengthened the LLFF rights to fish in the lake. Village, town and city marketing systems had been established and the overall marketing system had stabilized. This then came under threat when in 2004 the State Council issued a law banning encroachment on arable land, and included in this was a ban on changing cropland into ponds.

The interaction of the major elements of MAS theory can be seen in each of the development phases that the Longlake freshwater fishing marketing system passed through. In the formation phase, differential endowments in the skills and capabilities of villagers played an important role in the co-evolution of beliefs and behaviors; in the social skills and strategic choices made by individual and collective participants in the micro action fields that were forming and reforming; in the working over time of the social mechanisms that were initiated by participants in the action fields and which resulted in cooperation, value exchange settings and logics, specialization, scale and diversity, and the emergence of marketplaces, markets, distribution and social networks; and in the growing tangible and intangible infrastructures of the marketing systems embedded within each other at family enterprise, village and later, regional levels. At each point in these developments emergent networks were creating institutional settings at all levels that imposed practice constraints on the strategic choices made by participants. The developmental sequences generated in this way reflected external happenings, with almost random timing depending on the workings of local social mechanisms and action fields, and in the end, created path dependence and an almost infinite variety of system outcomes.

Much the same can be said of the second and third phases in the Longlake marketing system development. In the second

phase strategic action fields were critical as the system faced an increasing sustainability barrier. The response initially was to ignore the challenge that was looming, and then action on the part both the LLFF and the private fishermen led to conflict that became increasingly bitter. The innovative shift to pond farming in response to declining fish captures and the economic gains that resulted, combined with a shift in ownership norms when farmers realized that they owned the fish in the ponds, led to a resolution of the conflict. Increasing specialization, scale, strategic choice and uncertainty avoidance, also marked the third phase where pond and pen farming became the norm and the LLFF dominated in fish capture. Participants in the relevant action fields became more numerous, and the fields became better organized with incumbents, challengers, and governance units all in place. The marketing systems and the associated infrastructures that had formed over these years took many forms – vertical or channel structures, horizontal marketplaces in many locations, facilitating systems, and composite structures.

The economic and social consequences of these changes were profound, transforming the daily lives of everyone in the village, town and city communities. The astonishing twenty-fold increase in fishery production between 1978 and 2001 from Hubei is testimony to the economic success possible from marketing system formation, growth and adaptive change.

The Longlake example highlights the ways in which beliefs, behaviors and social practices change as marketing systems form and grow. While the details are always different, MAS theory argues that it is the twists and turns in the interaction of social mechanisms, action fields, and marketing system structure and function that are common to all marketing systems as they form and grow. The example of Longlake also illustrates the multi-level interactions that occur – beginning with each village, then widening to bring in networks of villages, and then the city – each micro, meso, and macro system forming and growing in a similar way, each focal system the product of interacting evolutionary behaviors and choices, social mechanisms and marketing systems within and between levels of aggregation.

Evidence of similar changes in human communities initiated by a transition from a fully state planned, socialist society to a more open economy can be found in countries such as Cuba and in the countries bordering Russia. In Cuba, the Castro revolution of the 1960s brought a fully planned, collectivized economy where each citizen was treated equally, enjoyed free education, health, and many social benefits. In the face of declining productivity and changing international settings, Raúl Castro, who was appointed President in 2006, began to relax the tight controls imposed on free enterprise, on asset transfer, and internal population movement (Frank 2013). The result was similar to Deng Xiaoping's call for household responsibility, with small business initiatives springing up in cities, town, and farms and offering from homes, small marketplaces, and road-side locations a wide range of goods and services including clothing, tools, produce, in-home restaurants (with state controlled limited menus and tables), hairdressing, computer repairs, and many other services for cash to a public looking for ever wider assortments. The co-evolution of beliefs, actions and practices, which began in this way, drew on the social mechanisms of cooperation, exchange, and self-organization, creating an interacting set of strategic action fields, where incumbents including state planners had considerable power that in 2014 imposed limits to the growth of Cuban marketing systems. Although the retail sector was increasingly open, State control was paramount in managing distribution, with the consequence that small business, including farmers, found it often difficult to get the needed inputs. The result was widespread localized corruption as businesses sought the necessary approvals from officials. Here, as in Longlake, the underlying dynamics of marketing system formation and growth are apparent.

Conclusions

Friedrich Hayek once commented, ''The market is the result of human action but not of human design'' (Hayek 1967). MAS theory suggests that much the same could be said of marketing systems. While the behaviors leading to the formation of a marketing system are often (but not always) the result of deliberate design, as soon as these actions involve third parties, as direct or indirect participants in economic exchange, initial design is subject to compromise. As individual micro marketing systems form and grow, the action fields generated by each micro system and the social mechanisms stirred into action by field participants, make it likely that these systems will connect with each other, generating emergent networks of vertical, horizontal and facilitating meso level marketing systems. While sometimes the result of conscious choice, much of this growth is a consequence of accidental or random opportunistic decision made by an ever-increasing number of action field participants. Although failure is frequent, and corruption often endemic, especially amongst lower level marketing systems, the resulting multi-level systems, where micro systems are embedded in meso and macro systems, are much more the product of localized choices made by interdependent actors, both individuals and entities, than of policy or design. These marketing systems are complex, adaptive, often locally interactive, multi-level, sometimes purposeful, often subject to system transition or disruption, and as such, path dependent. If design is sought as an outcome, either through external policy or through internal managerial direction, then MAS theory suggests that this must rest on a close understanding of path dependence and the forces at work, and on continuous intervention shaping system development. As Garrett Hardin (1985) suggested many years ago, it is not enough to change just one thing.

Does MAS theory meet, or perhaps better, at this point in time, have the potential to meet, the requirements of a theory in marketing suggested by Hunt (2002) and other scholars? Hunt (p. 193) noted that there were three key criteria

to be met – that it should consist of a systematic set of statements, include law-like generalizations, and be empirically testable. The theory of marketing system formation, growth and adaptive change outlined here does have the potential to meet these three criteria – there is, or could be, an organized set of statements constructed around the basic building blocks of differential human endowment; the co-evolution of beliefs, behaviors and practices; the regularities generated by the workings of social mechanisms; the growth and organization of action fields; and the resulting tangible and intangible structure and function of networks of marketing systems. At this early stage some initial law-like generalizations are possible: (1) that micro marketing systems will form in every human community, (2) that in every marketing system where growth occurs, the interaction of co-evolution, social mechanisms, and action fields, will result in the tangible and intangible evidence of marketing system infrastructures being formed and that this in turn in turn will influence the further growth of the marketing system, (3) that diversity in marketing system structure, function and outcomes (including, especially, assortments) will grow as the marketing system grows, and (4) that failure of a marketing system to grow will stem from failure in one or more of the five sets of social interactions. While these generalizations require much more work before they are acceptable, they point to the potential of MAS theory to generate such propositions. Finally, there is the question of empirical testability. Testing the kind of propositions just noted is likely to turn on a close examination of marketing systems drawn from marketing in developing countries, from economic history, anthropology and sociology, and perhaps most often from historical records and narratives. The latter suggest that comparative history may prove a useful approach, where, as Mahoney and Rueschemeyer (2003) note, "all work in this tradition does share a concern with causal analysis, an emphasis on processes over time, and the use of systematic and contextualized comparison" (p.8). These concerns are central to MAS theory.

The MAS theory provides a framework and methodology for research into marketing systems and argues for a system wide, holistic approach. It begins with a careful identification of the focal marketing systems and proceeds in an iterative manner redefining the focal systems at each level and adjacency. Attention concentrates on the participants at each level of a multi-level system, and on the interactions that occur over time within and between levels. Depending on level, the participants will often be complex entities, where the forces at work in an action field, and the social mechanisms underpinning collective action, while grounded in a common humanity, will reflect internal and external political, economic and social power and capabilities and the limitations imposed by location. The emergence of marketing system infrastructure, tangible and intangible, is linked with the evolution of social mechanisms and action fields. While the holistic MAS theory is often difficult and time-consuming to implement, it identifies system wide issues and the ways in which they might be resolved.

The choices confronting managers and policy makers in all types of marketing system are indeed complex. The MAS theory, however, suggests that in some critical respects the issues are similar across system types. The formation and growth of a marketing system concerned with social issues such as alcohol addiction, gun violence, and widespread corruption, or the management of complex vertical marketing networks, or in establishing commodity trades between nations, or the search for system resilience in the face of a looming crisis created by a common pool resource, all require a holistic, multi-level, often multi-domain, approach if success is to be achieved. This was the case in the Longlake example, and will certainly be the case in managing the tourism marketing system centered on Ningaloo, where issues of sustainability are likely to be paramount and the outcomes will depend very much on managing participant activities in the relevant action fields, as incumbents, challengers and governance units search for common ground.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

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