

THE DIGITAL MARKET-SPHERE (DMS): MODELING VIRTUAL TRANSACTIONS AND TRANSVECTIONS

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This paper advances a theoretical framework to help marketing scholars and strategists to navigate the electronic transactions and transvections that compromise the digital market. Although an expansive literature addresses the digitization of marketing functions and the formulation of digital marketing strategy, few have framed the digital market itself. This paper takes on the challenge of conceptualizing holistic digital market conditions. The proposed Digital Market-Sphere (DMS) concept is validated by distilling seminal marketing theory and contemporary digital marketing research. Established theory construction methods are followed to conceptualize, operationalize, and implement the DMS concept. In addition to distilling conceptual properties from connotative marketing theory, a strategically oriented DMS framework is designed to denote operational system parameters. As an ontological model, the DMS framework contributes a viable dashboard instrument for navigating marketing scholarship domains and digital market(s) strategy directions.

INTRODUCTION – MODELING DIGITAL MATTER IN MOTION

New marketing paradigms are rare. It is even rarer that marketing theory rushes to embrace them. Samli (2006) characterizes the present dynamic environment as “turbulent,” prompting marketing scholars to rethink the market and remodel strategy (Hakansson, Harrison, & Waluszewski, 2004). These emerging new digital market conditions have prompted an examination of marketing theory consequences (Zinkhan, 2005). To that end, marketing scholars must map the shifting digital market landscape the way surveyors chart new territory.

The purpose of this conceptual study is to unify the scope of digital market properties with a systematic design of digital marketing properties. By developing a theoretical framework to unify diverse digital marketing literature streams, the study contributes an inclusive perspective for research and planning. In particular, the purpose is to achieve greater synthesis and symbiosis among the digital

market constructs addressing customers (demand), companies (supply), and communities (external). Typically, digital market studies focus on one of those three primary market realms, rather than advance holistic planning framework – exceptions notwithstanding (Berthon & Hulbert, 2003; Brodie, Winklhofer, Coviello, & Johnston, 2007; Kimiloglu, 2004; Moore & Breazeale, 2010; Varadarajan & Yadav, 2002; Watson, Berthon, Pitt, & Zinkhan, 2004; Watson, Pitt, Berthon, & Zinkhan, 2002; Zinkhan, 2005). However, this study’s integrated digital market scope permits a more systematic assessment of the ethical outcomes associated with enterprise objectives by emphasizing Reidenbach and Olivia’s (1981) conditions,

“... for the continued development of marketing science two things (are) needed: better tools for analyzing the facts of marketing, and the development of a conceptual framework that will assist in asking the right questions about marketing phenomena ...” (p. 30).

Emerging digital market phenomena are described here as the Digital Market-Sphere (DMS). This description achieves the study’s fourfold intentions. First, the term sphere transcends the physical plane while also

encompassing traditional marketplace processes. The DMS configures spatial interaction based on digital cognitive sharing, which may or may not correspond to physical material situations. Secondly, sphere refers to a holistic and inclusive domain, similar to a universe or ecology. Much like a biological ecology or cosmological universe, the DMS is advanced as a holistic taxonomy of the digital market properties and parameters. Thirdly, sphere connotes a continuous rolling motion like the digital market's accelerating innovation. Digital market(s) dynamism and depth is not fully conveyed by terms like market, marketplace, e-commerce, Internet/online, or "marketspace" (Rayport & Sviokla, 1994). For that reason, the term "Infosphere" (Floridi, 2002) is used in the fields of computer science (micro) and information ethics (macro). Fourth, the word sphere also possesses the theory construction attributes of descriptive tautology and prescriptive ontology. As a tautological instrument, the DMS concept confers a unified logic on the patchwork of digital market(s) scholarship. Subsequently, the ontological DMS framework contributes a cyclical order for planning digital market(s) strategy.

In traditional marketing theory, Hunt's (1978) "nature and scope" imparts unity and order. As an ontological instrument, the DMS is a logically designed dashboard for navigating scholarly domains and strategic directions. Similar planning instrument objectives are achieved by a landmark global telecommunications study, "The Geodesic Network" (Huber, 1987; Huber, Kellog, & Thorne, 1992), which adopted a spherical model to map the earth's technology spectrum. Like the DMS, geodesic framing breaks free of the conventional "pyramid" paradigm of market conduits and content. So, the term Digital Market-Sphere preserves the integrity of existing terminology in the literature and contributes appropriate nomenclature.

Existing digital market research recognizes the distinctions from traditional market conditions, but addresses these changes as disconnected

developments. In the customer realm, online preferences differ from traditional market behavior (Goldsmith, 2002; Saaksjarvi & Pol, 2007; Xie, Teo, & Wan, 2006). The ability of digital applications augment customer search and evaluation alters choice benefits and switching costs (Chellappa & Sin, 2005; Curran & Mueter, 2007). In the company realm, digital strategy is molded for instantaneous and information intensive online channels, including new media networks (Ashley, Larie, Lynagh, & Vollmer, 2008; Zhang, Prybutok, & Strutton, 2007; Zhu & Nakata, 2007). On the horizon, marketing scholars have begun studying virtual world marketing strategy for immersive online modes (Holzwarth, Janiszewski, & Newmann, 2006; Wood, 2011; Wood & Solomon, 2009). Finally, in the community environment realm digital markets create closer connections between micro enterprise and macro ethics considerations (Ashworth & Free, 2006; Kim, Choi, Qualls, & Han, 2008; Langenderfer & Cook, 2004; Sirgy, Lee, & Bae, 2006).

Instead, the scope of digital market transformations calls for a comprehensive model to advance theoretical research by "fitting facts into an orderly pattern with enlarged and significant meaning" (Schwartz, 1963, p. 68). Moore and Breazeale (2010) examined the electronic commerce literature and found that all "conceptual" research accounted for the smallest share at 11%, with only 2% of e-commerce studies advancing "theory" and "modeling". Like driving fast cars without a map, digital market studies race to the future without a common direction. Although there are many different routes to the online future, they are all paved on a digital market system foundation. Therefore, this study integrates research on the three market realms into a holistic design of digital "matter in motion" (Shaw, 1912).

LITERATURE REVIEW -- DIGITAL MARKET PROGRESSION

The digital market "metamorphosis" is aptly captured by Berthon and Hulbert (2003):

“Marketing in the 21st century is in a process of rapid change. The shift from a matter economy to the information economy has been the main driver in the evolution of the field. . . . In all, this giant metamorphosis will dissolve old distinctions and concomitantly create new ones, leading to an age of unprecedented uncertainty. The map of marketing is being redrawn.” (p. 31)

Important insights for digital market theory construction can be gleaned by tracing marketplace development. In addition to providing insight, the historical review depicts a parallel progression of embedded marketing system intelligence and ethical marketing system ignorance. Reconciling these opposing forces requires an enlightened vision of digital market potential. The aggregate marketing system has progressed from a forum for physical space and time transactions, to the parallel worlds of marketplace and “marketspace” (Rayport & Sviokla, 1994) to a current digital market spectrum including immersive virtual worlds. Early marketing scholars conceived of the marketplace as a physical space and time domain comprising tangible channels and content (Bartels & Jenkins, 1988; Shaw & Jones, 2005; Sheth, Gardner, & Garrett, 1988). Consequently the marketplace was designed for physical institutions and material transactions (Kotler & Levy, 1969). The strategic terrain of micro-marketing is separated from the societal terrain of macromarketing (Hunt & Burnett, 1982). Marketing management functions mediate the micro/macro-marketing divide to deliver customer and community value (Bartels, 1968).

Once an electronic “marketspace” emerged (Rayport & Sviokla, 1994, 1996), the space and time determinants of physical market channels were eliminated. In their place a network of “cybermediaries” was substituted (Sarkar, Butler, & Steinfield, 1998). The marketspace is mapped by web traffic flows (Berthon, Pitt, Berthon, Crowther, Bruwer, Lyall, & Money, 1997) that parallel traditional marketplace channels, but offer improved convenience,

costs, and connections. Traditional “4Ps” strategic distinctions become less recognizable in the marketspace, and conventional micro-marketing/macromarketing boundaries are blurred. Eventually, various hybrid forms of “eMarketing” take root, consisting of entirely electronic dialogues for business-to-consumer as well as business-to-business markets (Brodie et al., 2007). Intelligent digital market interfaces amplify individual customer interaction and allow collaboration among market participants – known as “virtual communities” (Hagel & Armstrong, 1997; Kozinets, 1999; Kozinets et al., 2008). These collaborative channels and customizable content create an entirely new digital market reality.

At the leading edge of this new digital market reality are immersive virtual worlds where space, time, and identity are artificially created (Watson et al., 2002). Virtual worlds are immersive digital markets with realistically represented 3-D video-game-like online environments, such as “Second Life” (Kirkpatrick, 2007). Personalized avatars act as alter egos for virtual world market participants (Hemp, 2006; McGoldrick, Keeling, & Beatty, 2008). Marketing scholars have begun studying virtual world market behavior (Holzwarth et al., 2006; Wood, 2011; Wood & Solomon, 2009), and pilot testing shopping avatars that use artificial sensors to touch and try on clothes (Kim & Lennon, 2008; Sivaramakrishnan, Wan, & Tang, 2007). However, despite its potential, marketing theorists have yet to explicitly incorporate them into digital market system models.

Ethics and social responsibility are equally important in the conceptualization of digital markets. The pervasive reach and probing radar of Internet technology pose serious challenges to digital market integrity (Ashworth & Free, 2006; Bush, Venable, & Bush, 2000; Sison & Fontrodona, 2006). Online market interaction activity can be impaired by a wide range of unethical practices beyond the reach of traditional regulations (Hoffman, Novak, & Peralta, 1999). Markets that rely on customers,

companies and communities to freely share in digital dialogues have, therefore, tended towards trusted, secure, and private interaction (Gritzalis, 2006; McKnight, Choudhury, & Kacmar, 2002; Radin, Calkins, & Predmore, 2007). This enlightened tendency furthers the confluence of strategic enterprise and societal ethics. Ideally, digital market confluence should optimize customer engagement, company enterprise and community embracing.

RESEARCH METHOD -- THEORY CONSTRUCTION PRINCIPLES

Developing a unified concept of the Digital Market-Scope (DMS) with a systematic design of digital market processes requires sound theory construction principles. The DMS framework is formulated according to Wacker's (1998, 2004, 2008) four basic criteria for the definition of theory/principle:

1. Definitions of terms or variables for a concept
2. Domain limitations to identify where the theory is applied
3. A set of relationships among variables
4. Measurement predictions and method for proving factual claims.

The starting point of theory construction is selecting a logical method. The Digital Market-Sphere (DMS) is formed by formulating conceptual connotations and denotations. In logic, connotations pertain to essential ideas and denotations refer to applicable areas (Anschutz, 1953; Barnes, 1945). For theory construction, connotations and denotations constitute the concept development process. First, connotations are established by stating theoretical "intensions" as the concept definitions and domains. Second, denotations are examined by showing practical "extensions" as the variable relationships and viable results from concept application. Sonesson (1989) contends:

"In logic and philosophy, denotation means the same thing as extension (i.e. the object or class of objects subsumed by a concept) and connotation is another term

for what is also termed intension or comprehension (i.e. the list of all parameters characterizing the concept; and/or the parameters permitting us to pick out the objects falling under the concept". (p. 74)

This study follows the logical progression from connotations to denotations in both the discussion sequence and the specification of DMS structure. The progression tells a narrative about the realms, rules, restrictions, relationships, and results of digital market system phenomena that clarify theoretical principles and processes (Pentland, 1999; Sutton & Staw, 1995). As outlined below, the order of topics discussed and the origin of terms included in the DMS design are as follows:

1. *Realms* – describing the DMS concept based on a convergent domain configuration for digital market system(s) scholarship and strategy (connotation)
2. *Rules* – defining the DMS concept based on ubiquity and fluidity, as digital market system(s) manifestations of transactions and transvections (connotation)
3. *Restrictions* – delineating DMS concept domain limitations with core and composite research properties (connotation)
4. *Relationships & Roles* – designating the DMS concept variables and variable interactions used to design digital market system(s) (denotation)
5. *Results* – determining the DMS concept value based on normative outcomes and prescriptive measures (denotation).

Figure 1 charts the theory construction stages of DMS concept definition, operationalization, and implementation. As the table shows, the DMS concept is defined with connotative structural properties by first specifying the composition of digital market realms (customer, company, community), as well as the digital market condition rules (ubiquity and fluidity). Conceptual properties for these digital market realms and rules are further connoted

with core and composite domain limitations. Then, the DMS concept is denoted by systems parameters that operationalize the strategic digital market orientation. Systems parameters are designed as relational value propositions for inclusive digital market interaction, and ontological digital marketing mix vectors for achieving digital market congruity. The final stage of theory construction denotes predictive results by describing the normative outcomes of DMS concept implementation. These normative outcomes occur in the customer and community realms, with results that combine market value and market ethics. Also, specific phrases are used to distinguish the conceptual development of DMS structural properties from the operational design of DMS system parameters. The first connotative theory development method is the *DMS concept* and the second denotative strategy development mode is the *DMS framework*.

CONCEPT DEFINITION – DIGITAL MARKET COMPOSITION & CONDITIONS

Defining the DMS concept starts by clarifying the composition of digital market(s). There is clear convergence in the marketing theory literature supporting the marketing system design (Bartels, 1968; Hunt, 1976; Hunt & Burnett, 1982; Ziff, 1980). That research converges on a market comprised of three primary market realms – target market customer, company marketing functions, and external environment community stakeholders. This tripartite scheme is also separated into micro-marketing practices involving the company and customer, as well as macromarketing patterns involving community stakeholders and society at large. The DMS concept extends this convergent research domain design to frame the composition of digital market(s) as customer, company and community realms.

After determining the composition of DMS concept realms, theory construction proceeds to define digital market conditions. The Digital Market-Sphere (DMS) uses terms that are

anchored in the literature to preserve the conservatism virtue of theory building (Wacker, 1998, 2004, 2008). However, these terms or variables are endowed with new meanings because of the unique formulation of connotations and denotations asserted by the DMS concept. A simple way to define the DMS concept is to explain the hierarchy of terms and their logical association. At the top of the hierarchy is a pair of complementary terms rooted in Alderson and Martin's (1965) early marketing system design – “transactions and transvections”. Since the theory's inception, it has been applied to both macro market patterns and micro market practices (Goodrich, 2007; Prenkert & Hallen, 2006). Hulthen's (2007) study of electronic technology distribution networks highlights the analytical merits of “transactions and transvections” for designing digital market systems. Thus, the DMS concept hierarchy is ruled by two new terms – ubiquity and fluidity -- that extend transactions and transvections to digital markets. Ubiquity and fluidity are the dialectic principles that produce digital market conditions.

The theory construction virtue of generalizability (Wacker, 1998, 2004, 2008) is affirmed by the semantic meaning of the rules terminology in the relevant literature. Like the ubiquity and fluidity rules defined for the DMS concept, these sources depict the determinants of distinct digital market conditions. For instance, Wind and Mahajan (2000) spell out principles shaped by “the new rules of marketing in a digital age.” Shapiro and Varian (1999) used the term “Information Rules” to chart the forces changing industrial markets into an information economy. In this same vein Kelly (1998) identifies “New Rules for a New Economy” and Siebel (1999) highlights “Cyber -rules”.

Ubiquity – Digital Market Transaction Channels

The DMS concept defines ubiquity from the digital marketing literature, marketing theory literature, and the philosophical literature to import transactions to the digital market(s)

FIGURE 1:
Digital Market-Sphere (DMS) Theory Construction Stages

I. Connotative Structural Properties	
A. DMS Concept Definition (Realms & Rules)	<ol style="list-style-type: none"> 1. Digital Market(s) Composition (Realms) <ol style="list-style-type: none"> a) <i>Customer Realm</i> – digital market(s) satisfaction b) <i>Company Realm</i> – digital market(s) strategy c) <i>Community Realm</i> – digital market(s) stakeholders 2. Digital Market(s) Conditions (Rules) <ol style="list-style-type: none"> a) <i>Ubiquity Rule</i> – vastness of digital network channel “transactions” b) <i>Fluidity Rule</i> – value of digital knowledge content “transvections”
B. DMS Concept Domain Limitation (Restrictions)	<ol style="list-style-type: none"> 1. Core Research Focus on Existing Marketing Theory Categories <ol style="list-style-type: none"> a) <i>Dynamic Marketing Systems</i> (General Theory of Marketing, Nature & Scope of Marketing) b) <i>Digital Market(s) and Marketing</i> (E-Commerce, Internet, Online, etc.) c) <i>Macromarketing</i> (Well-Being and Distributive Justice) d) <i>Marketing Strategy</i> (Societal Marketing Concept) e) <i>Service-Dominant Logic</i> (Micro/Macro Market Scalability) 2. Composite Research Orientation from Eclectic Marketing Theory Combinations <ol style="list-style-type: none"> a) <i>Symbiosis</i> (General Living Systems Theory) b) <i>Synthesis</i> (Network Paradigm, Being Digital, and Code) c) <i>Sagacious</i> (Marketing Ethics, Social Marketing, and Marketing Hermeneutics) d) <i>Serendipitous</i> (Ontology, Diffusion/Adoption, Critical Theory, and Reflection/Reflexive Methods) e) <i>Simultaneous</i> (Service-Dominant Logic, Post-Modernism, and Symbolic Marketing Systems)
II. Denotative System Parameters & Normative Outcomes	
A. DMS Concept Strategic Operationalization (Relationships & Roles)	<ol style="list-style-type: none"> 1. Optimal Congruity Goals (Relational Axes) <ol style="list-style-type: none"> a) <i>Creating Shared Presence Congruity</i> – Digital Relationship Marketing b) <i>Creating Shared Performance Congruity</i> – Digital Marketing Mix c) <i>Creating Shared Purpose Congruity</i> – Digital Consumer/Community Duality (Value/Ethics) 2. Relational Value Propositions (Relational Modes) <ol style="list-style-type: none"> a) <i>“Nexus” marketing for “Node” conditions</i> (low awareness / high time-space specific) b) <i>“Immersion” marketing for “Hyper-Real” conditions</i> (high awareness / high time-space specific) c) <i>“Sync” marketing for “Matrix” conditions</i> (low awareness / low time-space specific) d) <i>“Transformation” marketing for “Post-Human” conditions</i> (high awareness / low time-space specific) 3. Ontological Marketing Mix Elements (Roles of “3Is”) <ol style="list-style-type: none"> a) <i>Intelligence Role</i> (value creation/direction) b) <i>Intimacy Role</i> (value customization/development) c) <i>Interactivity Role</i> (value channel/delivery)
B. DMS Concept Strategic Implementation (Results)	<ol style="list-style-type: none"> 1. Normative Customer Realm Outcomes (Engaging Competency) <ol style="list-style-type: none"> a) <i>Market Value Results</i> -- Customer Realm Congruity b) <i>Market Ethics Results</i> – Individual Well-Being 2. Normative Community Realm Outcomes (Embracing Competency) <ol style="list-style-type: none"> a) <i>Distributive Justice Index Results</i> – Community Realm Congruity b) <i>Stakeholder Inclusion</i> – Societal Well-Being

context. Digital marketing scholars point to a “ubiquitous worldwide information network” (Berthon & Hulbert, 2003) and distinguish “ubiquitous” electronic “U-commerce” networks (Watson et al., 2002, 2004). According to Watson et al. (2002), “Ubiquitous networks... support personalized and uninterrupted communications and transactions between a firm and its various stakeholders to provide a level of value over, above, and beyond traditional commerce.” (p. 336).

The rationale for aligning digital network flows with the concept of market transactions stems from their shared origin in “The Law of Exchange” (Alderson & Martin, 1965, p. 121). Digital networks, like traditional transactions, direct the path for exchanging “matter in motion” (Shaw, 1912). Prenkert and Hallen (2006) model digital business network based on the exchange premise of Alderson and Miles’ (1965) transactions. So, digital market scope – or *ubiquity* -- is the rule that determines the vastness of electronic transaction channel.

Ubiquitous digital market interaction is driven by networking technology advancements in three areas. First, network hardware and physical conduits are designed with automated sensors and programmable routing features which improve market efficiency (Ratchford, Pan, & Shankar, 2003). Second, network software advancements include Internet and ‘cloud’ applications to monitor, map, image, and manage digital content (Taylor & England, 2006). Third, ‘smart’ mobile appliances (Balasubraman, Peterson & Jarvenpaa, 2002; Taylor & Lee, 2008) allow digital market interaction to mirror social presence.

Besides determining digital market scope, ubiquity deploys the sensing capacity of intelligent digital networks. Analogous to the brain’s neural networks for routing cognitive signals, digital channels deliver knowledge value to market nodes. The network mode is described as a collaborative channel for societal, economic, organizational, and market interaction, in the general marketing,

management, and information systems literature (Achrol, 1997; Achrol & Kotler, 1999; Castells, 1996; Ritter & Gemunden, 2003). As this network mode pervades digital market transactions, increased web-based innovations are emerging for social networking applications (Brown, Broderick & Lee, 2007; Finin, Ding, Zhou, & Joshi, 2005; Fitzgerald, 2004).

Likewise, the marketing theory literature associates ubiquity with both the span of markets and the network of transactions (Achrol & Kotler, 1999; Alderson & Martin, 1965; Iacobucci, 1996) – including cognitive associative networks for discerning marketing messages (Henderson, Iacobucci, & Calder, 1998). In fact, Keil, Lusch, and Schumacher (1992) views the “exchange paradigm” as a ubiquitous rule encompassing all market transactions. These conceptual origins of the ubiquity rule are buttressed by philosophical ideas like Kant’s “universal consciousness” (Stanford Encyclopedia of Philosophy 2011) as well as Floridi’s (2002) “Infosphere” in computer science and information ethics. These antecedents of ubiquity are manifested in a practical context by Rogers’ (1983) social/market diffusion, or what biologists call viral contagion effects.

Fluidity – Digital Market Transvection Content

The logic for aligning intelligent digital content with market transvections can be traced to the common root of value “transformation” (Alderson & Martin, 1965, p. 123). So, value transformation – or *fluidity* – is the purpose of digital knowledge transvections. Fluidity reflects the flexibility of digital content. This plasticity allows for infinite combinations digital content for marketing. Likewise, fluidity refers to the instantaneous pace of digital content. Digital content can be rapidly shared in either synchronous or asynchronous time. Fluidity deepens the market penetration of digital transvections, whereas ubiquity widens the market potential for digital transactions. In strategic terms, the transvection

of fluid digital content pervades the three digital market realms. Fluidity is evident in the “multiple and complex” penetration of e-marketing practices (Brodie et al., 2007; Coviello, Brodie, Brookes, & Palmer, 2003), involving transvections among customers, companies, and communities. Goodrich (2007) explains how digital transvection value amplifies the power of “mass customization” in the form of compatible experiences. Therefore, fluidity facilitates *customer engagement, company enterprise, and community embracing*.

Fluidity is also a term derived from the digital marketing literature, marketing theory literature, and the philosophical to import transvections into the digital market(s) context. Digital marketing studies highlight the malleability of “marketspace” (Rayport & Sviokla, 1994) and typify digital markets as customizable (“unique”) interactions among participants (Watson et al., 2002, 2004). Digital markets channel an effluent variety of content streams that can be combined across time, space, and individual preferences (Kimiloglu, 2004; Sheth & Sisodia, 1999). Also, just as digital channel ubiquity spans commercial transactions and cognitive thought, digital content fluidity spawns commercial functions and cognitive “flow” (Csikszentmihalyi, 1990; Hoffman & Novak, 1996).

Marketing theory literature (Vaile, Grether, & Cox, 1952) establishes the “flow” concept of commercial exchanges. Fluidity traces this conceptual vein from Breyer’s (1934) early analogy of markets as electrical circuits for commodity current flows to Dixon and Wilkinson’s (1982) system of sustaining market flows. More directly, the DMC definition of fluidity extends the “systematically integrated” marketing flows paradigm of Bowersox and Morash (1989) which models network channels. At root, fluidity manifests Shaw’s (1912) classic maxim of “matter in motion” for market transvections of digital matter.

Besides those digital market system definitions, flow also carries a parallel digital marketing

strategy meaning. The market in general and marketing channels in particular process resource flows to facilitate supply/demand exchanges (Kiel et al., 1992). Often, these flows are described as dynamic transformations (Alderson, 1957, 1965) performed by marketing institutions or intermediaries. Services marketing scholars (Lovelock, 1984) have shown that flows operate for intangible and intellectual content, as well as for material resources, primarily through relationships (Berry, 1980). Most recently, the prevalence of co-created relational value has furthered a “Service-Dominant Logic” for market flows (Gronroos, 2006; Vargo, 2011; Vargo & Lusch, 2004). Fluidity aptly translates the flow concept into digital market conditions that create and transform digital content value.

Philosophy reinforces the changeable nature of the fluidity with Heraclitus’ belief in ever-present change in the universe, as expressed by the truism “you cannot step twice into the same stream” (Wikipedia.org 2012). Similar to that idea of continuous transformation, fluidity captures the demand/supply polemic of value creation that transforms content into intelligence (or cognitive/smart content) through digital market transvections. Moreover, fluidity refers to the method as well as the mode of transformation.

Whereas continuous change is the mode of digital content flows, the method involves a collaborative alchemy among market participants that converts base information into refined intelligence. This dynamic cognitive content dialogue among market participants is informed by the “Hegelian Dialectic”, which guides logical induction and deduction (Stanford Encyclopedia of Philosophy 2011). Additional grounding for fluidity is found in the digitally relevant field of computer ethics, wherein Lessig (1999) defines “code” as an adaptive and combinatorial digital content structure.

Ultimately, the definitions of fluidity and ubiquity are aligned. Rogers’ (1983) description of adoption as the individual correlate of social/

market diffusion reflects the practical operation of fluidity as the digital market complement to ubiquity. In other words, collective digital networks expand ubiquitously through digital individual content transformations enabled by fluidity. Berthon and Hulbert (2003) see this digital market conjugation of ubiquity (transactions) and fluidity (transvections) as a “metamorphosis” caused by the convergence of information economy “conveyance (transmitting)” and “conversion (transforming).” Therefore, a logical premise exists for both the definition and duality of ubiquity and fluidity. Branching down the DMS concept hierarchy from ubiquity and fluidity leads to domain properties. These properties are introduced in the discussion of DMS domain limitations.

DOMAIN LIMITATIONS – DMS DESIGN REALMS & STRUCTURAL PROPERTIES

Clear DMS domain limitations are a necessity given the abundance of digital market(s) research. Two additional sets of domain limitations validate salient conceptual properties in antecedent research. Five *core* and five *composite* domain limitations are specified to reveal DMS concept “implications that we have not seen with our naked (or theoretically unassisted) eye” (Sutton & Staw, 1995, p. 378). Core domain limitations anchor the DMS concept focus in existing marketing theory categories to unify digital market(s) research. Composite domain limitations advance the DMS concept orientation with eclectic marketing theory combinations that frame unique digital market(s) research.

Core Domain Focus on Existing Marketing Theory Categories

This study carves out the domain of digital macromarketing planning, recognizing that macromarketing patterns encompass micro-marketing practices. This domain focus can be viewed as a strategic window (micro) for societal well-being (macro). The DMS domain builds on the comprehensive frameworks advanced by Kimiloglu (2004) to structure the

bounds of “E-Literature”, as well as the digital market tendencies identified by Varadarajan and Yadav (2002). Yet, instead of framing electronic market studies with a static taxonomy, the DMS concept follows the lead of Wilkinson and Young (2005) by modeling dynamic and interconnected digital market conditions. These fluid and ubiquitous digital market conditions comprise the DMS concept domain, with five inherent limitations:

1. Interdependent market/marketing system versus independent market subjects
2. Digital versus physical/traditional market/marketing system phenomena
3. Macromarketing (aggregate) versus micro-marketing (individual) patterns
4. Strategic planning (commerce) versus social policy (civic) orientation
5. Service-Dominant (S-D) logic in a system-embedded service-dominant (SESD) model.

The DMS contributes a holistic model of digital market dynamics. The holistic scope is explicitly designed as a market system encompassing the scope of micro-marketing and macromarketing. Following the unified systems theoretic approach of Mead and Nason (1991), the DMS frames interdependent participant interactions, not simply aggregate market activity. The term market system is synonymous with alternative phrasing, such as market systems, marketing system, and marketing systems. The construction of an instrumental theory (i.e. tool) implies a singular noun system, rather than the plural noun systems or active verb/noun phrase marketing system(s). For this study, the market system definition applies to plural market systems and the systematic marketing process. Likewise, the term digital market(s) pertains to the macro digital market and multiple micro digital markets.

Although apparent in its description, the DMS concept isolates digital market(s) conditions and phenomena. In particular, digital content sharing occurs through electronic market channels and virtual presence, rather than

traditional market channels and physical presence. Aside from conferring face validity, the digital market(s) domain limitation is necessary to comply with the ubiquity and fluidity rules, as well as the other core and composite domain limitations. Outside of digital market(s) conditions, the domain limitations pertain to entirely different applications of marketing theory.

The DMS is also designed as a macromarketing theory, because it “is involved in comprehending, explaining, and predicting the effects that the marketing system can have, and is having, on our world” (Wilkie & Moore, 2006, p. 231). Similarly, the DMS is a collective macromarketing system comprised of various levels of aggregation from individual to institutional constituents. As Lazer (1969) asserts in his pioneering treatise on “marketing’s changing and social relations”, a macromarketing compass is required to conceptualize the ubiquitous and fluid digital market(s) conditions. Macromarketing concepts account for a small fraction of the marketing literature addressing e-commerce developments (Moore & Breazeale, 2010), and the DMS fills this conceptual void. Most studies examine a particular technology platform, business plan, target market/industry, or strategic technique (Moore & Breazeale, 2010).

Although the DMS maps macromarketing patterns, those societal influences are framed through the prism of strategic micro-marketing interactions. Early on, these strategically oriented macromarketing goals were modeled as the “Societal Marketing Concept” (El-Ansary, 1972; Kotler, 1972; Kotler & Levy, 1969; Kotler & Zaltman, 1971). The dual purpose of societal gain and strategic goals is described by Zif (1980) as a “managerial approach to macromarketing”. More specifically, the DMS adopts a system-embedded service-dominant (SESD) perspective, following Layton’s (2008) definition. Digital market interactions are modeled as intangible service collaborations for optimizing strategic objectives and societal outcomes. These properties fit the definition of

service-dominant (S-D) logic (Gronroos, 2006; Vargo & Lusch, 2004), within a complex dynamic systems paradigm (Vargo, 2011; Layton, 2008, 2011).

This focus on conceptual models of the macro digital market system fills a noticeable imbalance in the electronic commerce literature towards micro strategic digital marketing practices, typically supported with quantitative measures. As the digital market system becomes more pervasive, a holistic framing using theory construction methods can further the insights derived from deductive logic. Through 2006, “conceptual” models of the comprehensive digital market account for only 3% of all e-commerce research (Moore & Breazeale, 2010). By focusing on the macro digital market system domain, this study balances the e-commerce literature’s emphasis on a myriad of micro-marketing practice.

Composite Domain Orientation toward Eclectic Marketing Theory Combinations

Having explained the *core* domain limits based on antecedent research categories, an additional set of *composite* domain limits are introduced. Analogous to the “composite function” in science, these additional five domain boundaries contribute desirable properties to the core DMS focus while also conveying their distinctive conceptual orientation. Whereas the core domain limits classify the underlying DMS concept categories, the composite domain limits confer unique DMS concept characteristics. As a result, the DMS concept domain is anchored by fundamental marketing theory and advances fresh marketing theory for understanding digital market(s) phenomena. The five *composite* DMS domain limitations are:

1. Symbiosis -- Interdependent digital market system realms of demand (customer), supply (company), and external environment (community)
2. Synthesis – Integrated ubiquity and fluidity rules produce distinctive digital market conditions

3. Sagacious – Implicit ethical wisdom for collective well being and marketing system sustainability
4. Serendipitous – Intuitive ontological design and application enhances theoretical discovery
5. Simultaneous – Interchangeable framing of macro-market patterns and micro-market practices.

Holistic symbiosis, or collective interdependence, is at the core of systems theory. The ecology and living organisms are so-called “open-systems” that evolve by holistically balancing resource processing, production, and the presence of resource provisions. Over the years, several marketing theorists have converged on a model of the collective market as an open system (Bartels, 1968; Dixon & Wilkerson, 1982; Dowling, 1983; Fisk, 1969; Fisk & Dixon, 1967; Layton, 1998, 2004; Prendergast & Berthon, 2000; Reidenbach & Oliva, 1981).

Viewed as an organic system, the sphere of market activity is comprised of three reciprocal realms; a resource ecology presence (external environment) sustaining resource production (supply) and resource processing (demand). This cellular model of digital market conditions is designed as symbiotic circular realms, analogous to the nucleus, membrane, and outer wall of a cell. For the DMS, a mediating company realm filters community environment conditions to create customer value. In an opposite process flow, the company realm mediates customer engagement and community ethics to cultivate market well being. Reciprocity between micro strategy and macro society is vital in turbulent market environments (Dowling, 1983; Wilkinson & Young, 2005), for boundary-spanning intelligence to reduce strategic uncertainty (Berthon & Hulbert, 2003; Clemmons & Bradley, 2001).

In addition, digital market conditions prime the synthesis of ubiquitous channel transactions and fluid content transvections. The

specification of ubiquity and fluidity as DMS concept rules reveals the forces of interactive connection and intelligent content. Whereas symbiosis defines the cellular order of digital market system(s) realms, synthesis defines the continuous operation of digital market system rules. Similar to scientific laws guiding elements in nature, these DMS rules of ubiquity and fluidity direct the distinctive digital market forces in the DMS concept realms. The “network paradigm” furthers digital market synthesis by expanding societal connectedness (Castells, 1996) and strategic convergence (Achrol & Kotler, 1999). The novel premise of “being digital” advanced by Negroponte (1995) captures the capacity of digital content to synthesize facets of individual identity and collective intelligence. Lessig’s (1999) concept of digital information “code” imparts a combinatorial logic for synthesizing both digital content attributes and digital network access.

Furthermore, the DMS is limited to ethical and sustainable research of the macro digital market (s) as a sagacious domain. The term sagacious is synonymous with meanings like ‘normative’, ‘justice’, ‘morality’, and ‘wisdom’ in the marketing ethics and social marketing literature (Andreasen, 1994; Brey, 1999; Ferrell & Ferrell, 2008; Hauptman, 1996; Hunt & Vitell, 1986; Laczniak & Murphy, 2006, 2008; Murphy, Laczniak, Bowie, & Klein, 2005). Sagacity connotes implicit ethical wisdom (Lowe, Carr, Thomas, & Watkins-Mathys, 2005; Murphy et al., 2005), improved collective well being (Sirgy & Lee, 2008; Sirgy et al., 2006), and marketing system sustainability (Connelly, Ketchen Jr., & Slayter, 2011; Hult, 2011; Murphy, 2005; van Dam & Apeldoorn, 1996).

A growing interest in digital market concepts generates many frameworks without a normative domain focus (Nill & Schibrowsky, 2007; Wilkinson & Young, 2005). Evading the ethical implications of digital dynamics for macromarketing policy and micro-marketing privacy violates what Lowe et al. (2005) set forth as the “fourth hermeneutic in marketing

theory". Often, micro digital market concepts lack macro digital ethics considerations. In other instances, macro digital market concepts cannot be translated into micro execution strategies. By contrast, the DMS domain is limited to sagacious digital market system concepts that embed ethical macromarketing and sustainable micro-marketing.

Serendipitous conveys the opportunity orientation of innovative digital market(s) strategic. Like the common saying "create your own luck", the strategic digital market orientation deploys systematic functions to seize serendipitous fortune. Examples include new product discoveries, first-in market segment loyalties, learning curve advantages, and propitious stakeholder partnerships. In this respect, serendipitous digital market(s) research reflects the theory construction virtue of "fecundity" (Wacker, 1998, 2004). Marketing theory support for this DMS domain limitation is drawn from the application of ontological concept designs (Hunt, 2002, 2003; Grassl, 1999). Ontological designs are intuitively understood and frame the digital market in a representative manner for intentional use by marketing scholars. For marketing strategists, ontological designs are viewed as planning instruments and "dashboards" for directing conceptual knowledge towards concrete action. Because ontological designs are represented more instinctively they reveal insights for advancing theory and practice more serendipitously than epistemological frameworks.

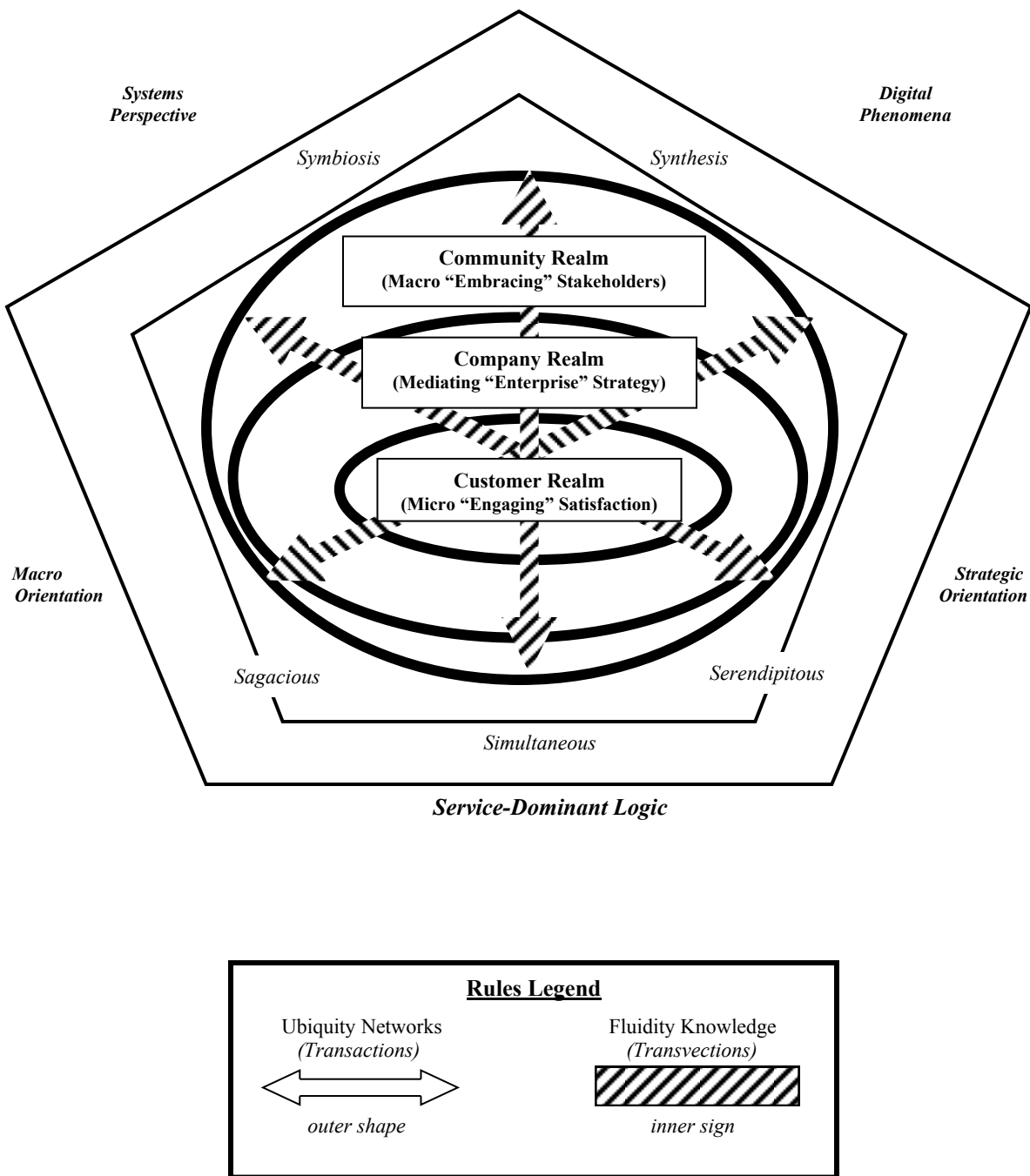
In the aggregate digital market system, serendipitous properties are mapped by the unpredictable diffusion/adoption function for commercial innovations (Rogers, 1983). Additionally, the research on critical marketing theory, cognitive reflection, and reflexive research methods (Alvesson, 1994; Alvesson & Skoldberg, 2000; Burton, 2002; Catterall, Maclaran, & Stevens, 2002) points to the serendipitous conceptualization of marketing system patterns and practices. Fry (1992, 1999) finds that these opportunities for conceptual

insight can emerge from a "new design philosophy" and the technique of "defuturing".

Lastly, the DMS concept is limited to mapping simultaneous micro/macro system processes. Only conceptual models that capture the digital market duality of micro practices and macro patterns share the DMS domain. A simultaneous micro/macro domain limitation adopts the logic of antecedent concepts (Hunt, 1976; Hunt & Burnett, 1982; Zif, 1980) by coupling micro-market supply/demand interactions and macro-market socio-economic implications. This interchangeable model of the digital market offers a Service-Dominant logic view of micro-level practices and macro-level patterns (Frow & Payne, 2011), including digital market(s) situations when "... the entities that compose a marketing system may themselves be marketing systems and analyzed as such ..." (Layton, 2008, p. 219). Moreover, because digital interaction is primarily cognitive, the symbolic marketing system is capable of being deconstructed and reconstructed for both micro-marketing and macromarketing purposes (Kadirov & Varey, 2010). Postmodern research in the marketing literature affirms the symbolic composition of simultaneous micro/macro system designs (Baudrillard, 1993; O'Shaughnessy & O'Shaughnessy, 2002; Venkatesh, 1999).

Consequently, the DMS framework is illustrated in Figure 2 as a set of connotative concept principles for (a) defining digital market condition *rules* and *realms*, as well as (b) limiting the domain of digital market research. Concept definition *rules* are portrayed with intersecting arrows for ubiquitous digital market transaction channels and fluid digital market transvection content. In addition, concept definition *realms* are modeled as a circular cell nucleus (customers), membrane (companies), and outer wall (communities). The theory construction virtue of consistency is preserved by directly extending seminal marketing theory to represent those concept definition properties.

FIGURE 2:
Digital Market-Sphere (DMS) Concept Structural Properties – Realms, Rules, Restrictions



Consistency is also furthered by retaining existing literature terms to limit the core conceptual scope. Specifically, five *core* domain limitations anchor the DMS concept with existing marketing theory categories and five *composite* domain limitations advance the DMS concept with eclectic marketing theory combinations. Figure 2 presents the core limits as outer pentagon arcs, and the composite limits as inner pentagon arcs. All core and composite limits overlap in a compatible manner like the hour and minute symbols of a clock. Still, these core and composite domain limits are presented as paired properties to emphasize the DMS framework's logical design.

At the top, the *systems perspective* core limit is associated with *symbiosis* and the *digital phenomena* core limit corresponds to the *synthesized* nature of digital market conditions. On the sides, the core limit of *macromarketing orientation* is linked to *sagacious* ethical well being and the core limit of *strategic orientation* is matched with *serendipitous* digital market value creation. At the bottom, the *service-dominant logic* core limit is coupled with *simultaneous* macro/micro application, because it is scalable to both macromarketing patterns and micro-marketing practices. By establishing a systems theory perspective as a core domain limit and embedding a dynamic systems orientation with composite limitations, the DMS domain prepares the theory construction transition from connotative structural properties to denotative system parameters.

RELATIONSHIPS & ROLES – DMS SYSTEM PARAMETERS

The theory construction sequence moves from connotative structural properties to denotative system parameters. After addressing the criteria of concept definition and domain limitation with DMS rules and realms, specific DMS variable roles and relationships can be designated for concept operationalization. System parameters convert the DMS framework into an instrument for navigating --

not just knowing -- the digital market domain. Similar to the dashboard controls of an airplane, the DMS system parameters can be used to gauge optimal digital market results for both marketing scholars and strategists.

System Configuration Guidelines and System Congruity Goals

The DMS system parameters are intended to impart the operational thrust of Watson et al.'s (2002, 2004) "U-commerce" framework. Accordingly, the DMS roles and relationships are designated based on the authors' configuration of digital market(s) based on "U-space" dimensions.

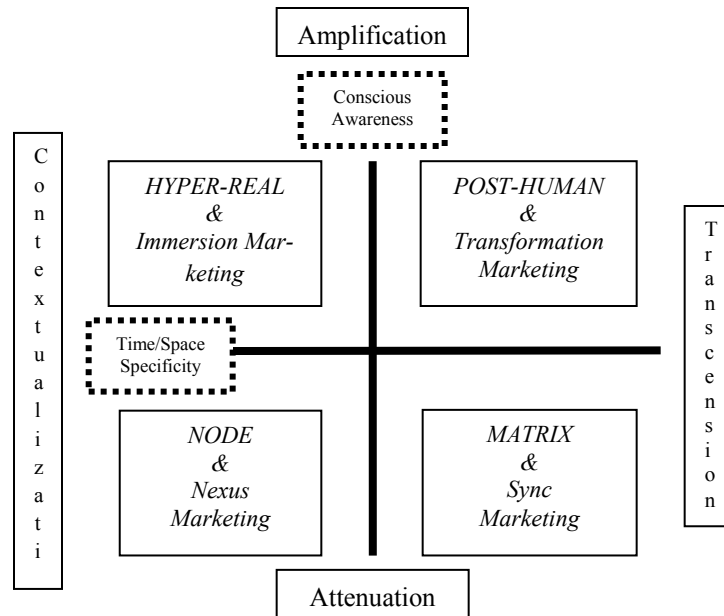
"Thus, we define U-commerce as the use of ubiquitous networks to support personalized and uninterrupted communications and transactions between a firm and its various stakeholders to provide a level of value over, above and beyond traditional commerce". (Watson et al., 2002, p. 336)

Like the proposed DMS framework, U-commerce is conceived as an immersive digital phase of market evolution. Specifically, Watson et al. (2002, 2004) describes the market evolution phases as, "marketplace (physical), marketspace (digital) and U-space (virtual/digital transcension)". This shared epistemology supports the use of their operationalized "U-space" model as an interface between structural digital market concept properties and strategic digital market system parameters. Furthermore, U-space dimensions of "time/space specificity" and "awareness/consciousness" are consistent with the respective DMS rules of transaction network ubiquity and transvection knowledge fluidity. (See Figure 3)

Relational value propositions for the digital market can be outlined according to the four U-space marketing objectives – amplification, attenuation, contextualization, and transcension. Amplification composes value propositions that extend or enhance conscious digital market interaction, such as with online shopping. Attenuation composes value propositions that

**FIGURE 3:
U-Space Digital Market(s) Framework**

- U-Space Framework Characteristics
(Source: Watson, et al., 2002, 2004)
- “Uber-commerce” traces the digital market evolution on a parallel path as DMS
 - “Uber-commerce maps modes of digital market interaction within 4 relational “U-space” quadrants
 - U-space interaction defined by:
 - (a) time/space specificity (ubiquity)
 - (b) consciousness/awareness (fluidity)
 - U-space addresses blurred distinctions when traditional boundaries are eliminated in digital market
 - U-space frames complexity of digital market interactions to identify strategic opportunities
 - U-space is conceptual interface between DMS concept properties and system parameters



[“U-Space” Design adapted from Watson, et al. 2002]

reduce the necessity for conscious interaction, like digital agents or “shop-bots”. Contextualization composes value propositions that personalize in specific time-space situations, such as applications that virtually customize the shopping experience and merchandise. Transcension composes value propositions that eliminate traditional time-space constraints, like social networking, virtual communities, and artificial life experiences.

Of course, the digital market is dynamic and these four U-space marketing objectives are combined to create four types of digital enterprise strategy for four different digital market conditions. These quadrants of the U-space model in Figure 3, distinguish whether digital marketing objectives are achieved through high awareness (ultra-conscious) or low awareness (unconscious) interactions, as well as whether the U-space marketing objective is achieved through high time-space specific (unique) or low time-space specific (ubiquitous) transactions. Each strategy/condition quadrant is listed below:

- “Nexus” marketing for “Node” conditions (low awareness and high time-space specific)
- “Immersion” marketing for “Hyper-Real” conditions (high awareness and high time-space specific)
- “Sync” marketing for “Matrix” conditions (low awareness and low time-space specific)
- “Transformation” marketing for “Post-Human” conditions (high awareness and low time-space specific).

These relational quadrants configure societal as well as strategic value propositions. Digital market conditions envelop community and customer realm interactions. Kim, Choi, and Han (2004) emphasize the importance of digital relationship strategy for imparting ethical reciprocity and social responsibility in online communities. The digital market’s fluid content and ubiquitous channels permit relations with environmental stakeholders to be seamlessly integrated within enterprise strategy. Thus, although these societal relationships are implicit in the U-space model, DMS system

parameters explicitly embrace strategic digital community relationships.

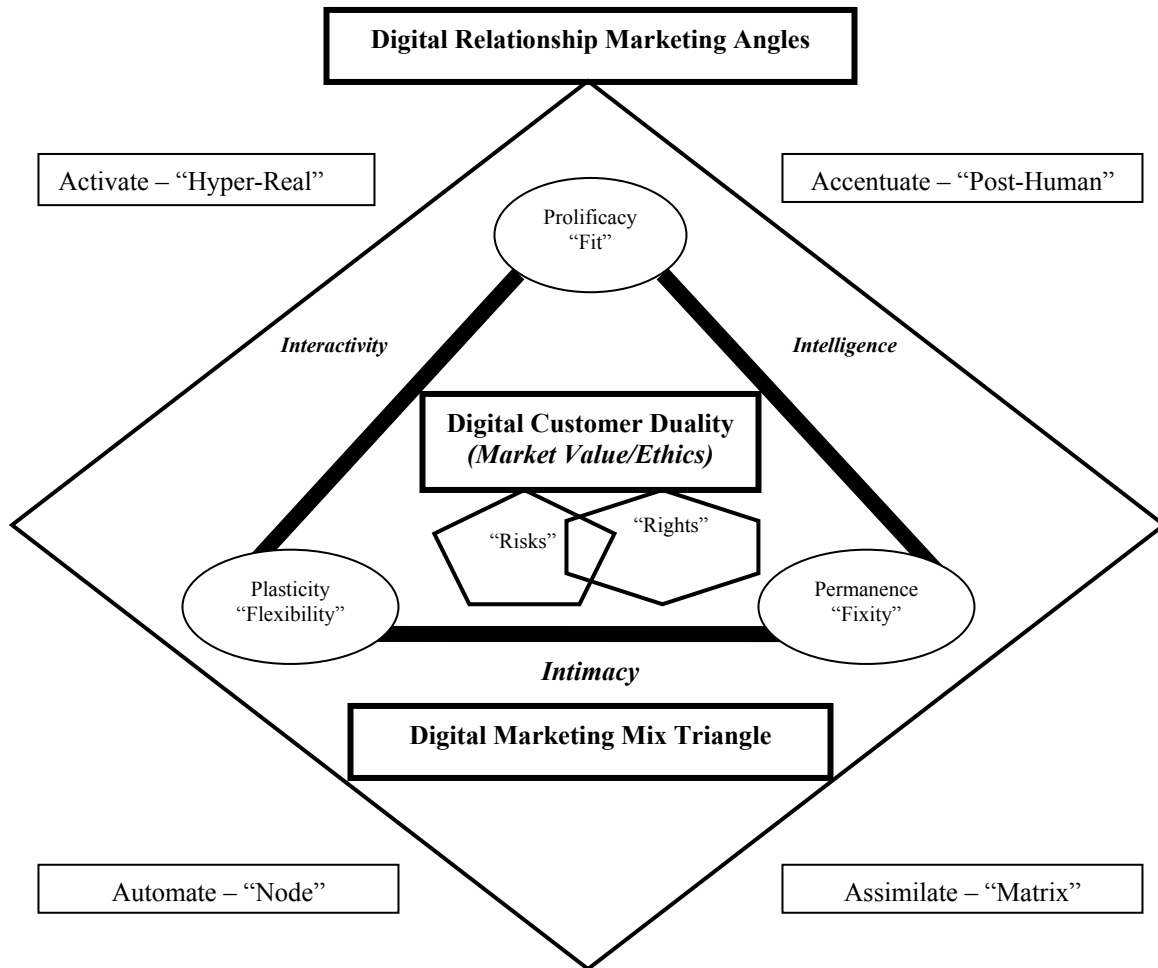
Just as the U-space dimensions guide the configuration of relational strategy parameters, congruity is the unifying goal for digital market strategy across the customer, company and community realms. Congruity originated as a social psychology theory for explaining human behavior based on the compatibility of sensory stimuli with cognitive schema (Osgood & Tannenbaum, 1955; Tannenbaum, 1968). Since then, congruity principles have been successfully extended to consumer cognition and market stimuli (Sirgy, 1985, 1986; Sirgy, Johar, Samli, & Claiborne 1991). As a goal for DMS system parameters, congruity calibrates how effectively company enterprise strategy engages digital customer segments and embraces digital community stakeholders. The digital marketing literature validates this use of congruity to attune DMS system parameters with strategic and societal goals (Kim et al., 2008; Mayo, Helms, & Inks, 2006; Sirgy, Grewal, & Mangleburg, 2000).

Well being expands congruity forces outward to embrace digital community ethics and economics (Sirgy & Lee, 2008; Sirgy, Lee, & Rahtz, 2007). Consequently, congruity imbues digital marketing strategy processes with malleable micro/macro marketing applications across the DMS realms (Sirgy & Grzeskowiak, 2005). These digital market(s) congruity goals reinforce normative ethics policies like distributive justice (Ferrell & Ferrell, 2008; Klein, 2008; Laczniak & Murphy, 2006, 2008; Wilkinson & Young, 2005).

Digital Relationship Marketing – Shared Presence Congruity (Time)

The first set of DMS system parameters designated address the relational context of digital market(s). The exchange paradigm (Bagozzi, 1975) anchors all relational marketing theories. The implied mutuality of market value exchanges characterizes relationships based on five “exchange utilities” – form, time, place, and possession. Subsequent

FIGURE 4:
DMS Framework System Parameters – Digital Market(s) Strategy Dashboard



development of the relationship marketing paradigm refined these “exchange utilities” by strengthening reciprocity, communication, commitment, and trust (Gronroos, 2004; Harker & Egan, 2006; Morgan & Hunt, 1994; Sheth & Parvatiyar, 1995) – including confluent virtual customer/community relationships (Kim et al., 2004; Kozinets, 1999, 2002; Kozinets et al., 2008).

Contextual marketing practices (Kenny & Marshall, 2000; Schmitt, 2003) also inform the relationship system parameters. The interpersonal nature of services marketing has shown the value of contextual relationship

strategy (Patterson & Ward, 2000). However, a varied universe of contextual experiences exists for digital market(s) services interactions. Interactive channels and intelligent content create a multitude of personal, professional, and public relationships. Relational parameters capture the context of shared digital market presence (Yoon, Choi, & Sohn, 2008), that shapes company performance and customer participation (Luo, 2002, 2003). Likewise, the virtual context imparts relationships with the capacity for strategic innovation (Nambisian & Baron, 2007), as well as improved customization and connectivity (Fassot, 2004;

O’Leary, Rao, & Perry, 2004; Sinisalo, Salo, Leppaniemi, & Karjaluo, 2005).

In practical terms, these shared presence contextual relationships define how time is experienced (Bluedorn, 2002) by digital market participants in each of the four U-space quadrants. “Node” condition relationships experience automated digital monitoring and metering of time and location specific market activity. For instance, implicit billing systems that tally the cost of cable television programs without an explicit pay-per-view interface. Also, electronic meters that track household or business utility usage. These *automated* relationships overlay physical time/location “nodes”.

Continuing in the U-space quadrants, “hyper-real” digital marketing strategies heighten the relational *activation* experience. These *activated* relationships expand experience marketing practices (Pine & Gilmore, 1999) into digital marketing. Examples include high intensity sensory devices like goggles and earplugs, as well as into entirely immersive virtual worlds where time and location specificity is defined in an artificial realm such as “Second Life” (Kirkpatrick, 2007; Wood, 2011; Wood & Solomon, 2009).

In the low time and location specificity U-space quadrants, “matrix” conditions encompass technology platforms like GPS, Wi-Fi, Bluetooth, and cloud computing, which provide the digital agency to *assimilate* an entire range of market interactions. In some instances, like mobile phone video pod-casting, the “sync” marketing strategies prescribed for “matrix” conditions *assimilate* time/location bounded “nodes” like entertainment program delivery into ubiquitous cloud computing (Andrejevic, 2007). In other instances, new Internet applications are *assimilated* into digital marketing strategy, such as “Twitter’s” spatial tracking and text messaging features.

When “matrix” anytime/anywhere ubiquity is experienced with amplified cognitive senses, the “post human” condition exists. Digital

strategies in this U-space quadrant transform marketing relationships by both enhancing conscious capacity and transcending time-space channels. Self-aware devices like bodily implants or environment sensors access smart networks, to *accentuate* digital cognition (See Figure 4). Consequently, relationship parameters are represented by a congruent plane of four angles that align company strategies with customer senses and community stakeholders. Depending on the U-space condition, digital market(s) relationships will *automate*, *activate*, *assimilate*, or *accentuate* the digital market value. Relationship marketing has been widely applied in micromarketing situations to achieve both business-to-customer (B2C) and business-to-business (B2B) objectives, including network paradigm strategies for traditional and digital markets.

All four strategic angles specified for U-space quadrants apply equally to micro-marketing customer relationships and macromarketing community relationships. *Automated* meters accrue efficiencies for households and municipalities. *Activated* real and virtual worlds require stable societal stakeholders. *Assimilated* cloud computing entertainment programming strengthens private commercial and public cultural sectors. *Accentuated* post-human digital cognition transforms strategic and scientific advancement. Thus, the DMS system relationship parameters capture the shared presence between company strategy and both customer value and community well being.

Those simultaneous micro/macro relationship value propositions are fully vetted in marketing theory for both traditional and digital markets. Traditional micro-marketing relationship strategy benefits like trust and commitment have favorable community effects as well (Gronroos, 2004; Harker & Egan, 2006; Morgan & Hunt, 1994; Sheth & Parvatiyar, 1995). Digital market(s) extensions of micro-marketing relationship value highlight advantages such as interactivity, customizability, and database driven profiles (Fassot, 2004; O’Leary et al., 2004; Yoon et al.,

2008). Macromarketing relationship value propositions for traditional markets include societal stakeholders in the co-creation of strategic outcomes (Frow & Payne, 2011; Sirgy & Grzeskowiak, 2005). Studies of online communities have shown that digital macromarketing relationships can grow from collaboration among individuals (Kim et al., 2004, 2008).

Digital Marketing Mix – Shared Performance Congruity (Space)

The digital marketing mix is cast as a mediating DMS system parameter, consistent with a longstanding tradition in marketing literature and history (Bagozzi, 1975; Bartels, 1968, 1988; Borden, 1964; McCarthy, 1960; Zif, 1980). In particular, the Internet and online tools enhance the mediation efficiency of marketing mix strategy (Ashley et al., 2008; McGaughey & Mason, 1998; Min, Song, & Keebler, 2002). Digital marketing mix elements simultaneously engage customers and embrace community constituents. Whereas digital relationships align the time presence of digital market participants (Watson et al., 2002, 2004), the digital marketing mix create congruity by also customizing the virtual objects and places for customer value delivery and ethical duty for community stakeholders.

Importantly, this strategic spatial orientation is measured by digital cognitive proximity, not physical location geography. Customer value and community ethics result from like-minded sharing of digital content experiences and collaboratively created “information objects” (Floridi, 2002). Marketing strategy is not designed for geographic places, but rather for cognitive fields, competitive spaces, and strategic windows like the DMS framework. Marketing scholars and strategists commonly describe planning as entering industry/business/media spaces to find a marketing ecology niche (Milne, 1989). Similarly, market intelligence uses statistical analysis to depict strategic opportunities as matrix spaces. Moreover, the digital market itself is labeled an electronic “marketspace”.

In a comprehensive review of the marketing mix paradigm for traditional and e-commerce applications, Constantinides (2006) demonstrates the conceptual and operational tenability of McCarthy’s original “4Ps”. To be certain, the marketing mix construct has been thoroughly examined in the marketing literature (Gatignon, 1993; Naik, Raman, & Winer, 2005; Waterschoot & Van den Bulte, 1992). Indeed, numerous digital “marketing mix” versions have been advanced as well, from the early 1970s ‘PC era’ (Lambin, 1972; Little, 1975), through the 1990/2000 ‘dot.com’ era (Courtney & Van Doren, 1996; Danaher, Hardie, & Putsis, Jr., 2001; Kalyanam & McIntyer, 2002; Peattie, 1997; Robins, 2000). Still, responding to the call of Hoffman and Novak (1997), a reformulated digital marketing mix is imperative.

“Therefore, marketers should focus on playing an active role in the construction of new organic paradigms for facilitating commerce in the emerging electronic society underlying the Web, rather than infiltrating the existing primitive mechanical structures”. (Hoffman and Novak 1997, pp. 45)

As a second set of DMS system parameters, the digital marketing mix depicts the operational roles of company strategy variables. These digital marketing mix roles mediate customer and community realms and facilitate congruent relationships. In order to formulate this second set of DMS system parameters, conceptual antecedents for the digital marketing mix are thoroughly probed. Constantinides (2002) offers a distinctive “4S Web-Marketing Mix” to adapt the original “4Ps” construct to digital market conditions. The model directs digital marketing strategy planning using a sequence of “4S” stages:

- Scope – market objectives, definition, readiness and role
- Site – interface and interaction planning
- Synergy – integrating processes for achieving virtual marketing objectives
- System – technological issues including hardware, software, and website applications.

Despite the sequential logic of the “4S” model, a digital marketing mix concept must also provide strategic leverage. The original 4Ps (McCarthy, 1960) imparts both sequential order and strategic ontology. By contrast, most digital marketing mix models are epistemological constructs that represent knowledge from antecedents (Bennett, 1997; Goldsmith, 1999; Lauterborn, 1990; Patterson & Ward, 2000). Epistemology is the philosophical inquiry into the origin of knowledge (Stanford Encyclopedia of Philosophy 2010). Marketing scholars rely on epistemology to articulate construct variables by referencing the antecedent research literature. However, in addition to having a conceptually grounded design, an operational model of the digital marketing mix should also be a useful instrument for navigating company strategy. For that reason, ontological models are designed to replicate knowledge for action or intended use. Ontology is the philosophical inquiry into the nature of being, as well as the basic categories of being and their relations (Stanford Encyclopedia of Philosophy 2010).

As an ontological design, McCarthy’s original 4Ps can be said to “emphasize the agency” (Fry, 1992, 1999) of marketing mix elements as strategy design tools. Ontological design follows the philosophical tenets of Heidegger (1962), which prioritize “purposeful activity and language” (Roth, 1997, p. 147). These more intuitive systems, whether as forms or theories of forms, naturally fade to the background and bring the “purposeful activity” to the fore. Classical examples include artifacts like hammers and knives which possess “embedded intention” (Willis, 2006) that does not require abstract or linguistic knowledge.

Designing the digital marketing mix as a set of ontological variable categories and relations requires a fundamental understanding of how strategic agency creates congruity between companies, customers, and communities. Marketing scholars recognize the relevance of ontology for guiding theory construction (Hunt, 2002, 2003), particularly because of the strategic agency it imparts to essentially

academic frameworks. Grassl (1999) advances an explicit “ontology of marketing” by analyzing the realism of brand strategy composed by marketing mix elements. So, an ontological digital marketing mix concept should show how real digital brand strategy forces determine real digital market value.

Grassl (1999) offers an ontological brand strategy categorization that can be reduced to Alderson’s (1957) three fundamental criteria for product survival and success.

Prolificacy -- fruitful fit within strategic space

Permanence -- stable fixity within strategic space, and

Plasticity -- adaptive flexibility within strategic space.

This ontological derivation of three focal brand strategy purposes can be used to frame the three digital marketing mix angles of intersection in U-space. Moreover, the three factor framing of strategy is reinforced in the business and marketing literature over the past thirty years. In business planning, Ohmae’s (1982) early “3Cs” strategy paradigm reduces the strategic aim of value creation (company), value delivery (customer), and value distinction (competitors). In marketing planning, the “Societal Marketing Concept” (El-Ansary 1972; Kotler 1972; Kotler & Levy 1969; Kotler & Zaltman 1971) is also designed as a triangular model to balance macromarketing sensibility of marketing strategy. Digital marketing mix strategy requires these types of balanced micro/macro-marketing propensities.

Marketing scholars have also advanced three factor frameworks to instill “market orientation” (Narver & Slater, 1990), internal/external services marketing (Boom & Bitner, 1981; Kotler, 1994), and information technology enabled services marketing (Bitner, Brown, & Meuter, 2000; Parasuraman, 1996; Parasuraman & Grewal, 2000). Even the “marketspace” (Rayport & Sviokla, 1994) advanced an adapted marketing mix comprised of three elements, with product collapsing into promotion for digital content offerings and

promotion combining with place for information products distributed through digital networks. However, neither of these three factor business and marketing strategy constructs has is designed with the instrumental “readiness-at-hand” for formulating digital strategy functions. Like a dashboard directional gauge, a digital marketing mix model should be specifically designed to guide scholars and strategists through both the mental and market processes involved in creating and sustaining congruity.

Those ontological design prerequisites are encoded in Kumar’s (2004a, 2004b) “3Vs” marketing mix triangle vectors. They are listed below with notations that describe the connections provided by each vector between Alderson’s (1957) three fundamental criteria angles.

- Value creation (direction) ... connects
proliferacy and permanence
- Value proposition (development) ... connects
permanence and plasticity
- Value network (delivery) ... connects
plasticity and proliferacy.

The 3Vs model meets the requirements of an ontological construct because it clarifies and catalyzes marketing performance by making strategic agency more ready-at-hand. Consequently, the DMS digital marketing mix is designed by extending the 3Vs model, with two distinct modifications. First, the digital marketing mix value creation (direction) is a confluent micro/macro process involving both customer and community realms. Secondly, the DMS rules of ubiquity and fluidity enable value propositions (development) and value networks (delivery) to encompass the community as well as customer realm.

A digital marketing mix triangle is formed by distilling the ontological marketing strategy antecedents. The triangle connects the three focal points of Alderson’s (1957) fundamental premise for successful marketing performance; (a) proliferacy/fit, (b) permanence/fixity, and (c) plasticity/flexibility. The triangle arcs are composed from Kumar’s (2004a, 2004b)

“3Vs”; (a) value-creation, (b) value-proposition, and (c) value-networks/delivery. As shown in Figure 4, strategic congruity is achieved through:

1. *Intelligence* – value creation/direction,
2. *Intimacy* – value customization/development, and
3. *Interactivity* – value channel/delivery.

The three digital marketing mix vectors adapt Kumar’s “3Vs” to a digital market context by extending two related marketing strategy constructs. First, Ballantyne and Varey (2006) formulate the “triangulation of value creating activities” using the three strategic aspects of; (a) “knowledge renewal” (intelligence), (b) “relationship development” (intimacy), and (c) “communication interaction” (interactivity). Second, Allen, Reichheld and Hamilton (2005) achieve customer loyalty with experience marketing by; (a) “designing experiences” (intelligence), (b) “developing capabilities” (intimacy), and (c) “delivering propositions” (interactivity).

A DMS Framework Scenario – Applying the Digital Market Dashboard

As shown in Figure 4, the DMS framework system parameters are advanced as ontological instruments, similar to a strategic marketing dashboard, or alternatively a drafting apparatus for marketing strategy architecture. The strategic window formed by relational value proposition angles is cropped tighter than the conceptual field of DMS realms, rules, and restrictions illustrated in Figure 2. DMS framework system parameters are designed to fit the strategic contingencies of companies maneuvering in digital conditions. Whether digital enterprise strategy is perceived as navigation or architecture, the first use of parameters is to determine the relational coordinates in cyberspace. This analysis is performed using the quadrants classifying relational value propositions. Next, within a particular relationship context, digital marketing mix roles can be devised. The triangular 3Is strategy process is initiated by gleaning direction to create shared value in the

customer and community realms. Then a development process ensues to customize value by encoding intimacy in digital content experiences. Collaborative value customization processes overlap with the continuous delivery of digital content experiences through value channels. Ultimately, this triangular digital marketing mix sequence achieves congruity in customer and community realms.

A glimpse into this complex triangular process for creating digital market value/ethics congruity can be provided with an e-health industry scenario. Clearly, e-health is just a subset of the larger healthcare industry that is devoted to physical body health. However, a supplementary information service provision and consumption network has grown into a digital market unto itself, encompassing both web and real world enterprises. E-health fits the digital market(s) condition rules of ubiquitous channel access and fluid content acumen. Ubiquitous digital network access permits medical service interaction. Fluid digital knowledge acumen plies medical service intelligence. Further, the e-health market is composed of the three digital market(s) realms. Patients fill the customer realm, although numerous examples can be offered with organizational customers including hospitals, insurance companies, and medical practices. Medical practices, such as a family physician network can fill the company realm. Then, a host of community realm stakeholders can be found, including economic employers, social service agencies, cultural and faith-based organizations, biotechnology research institutions, and political policy makers. So, a hypothetical e-health scenario can be envisioned for the operational DMS framework.

A web-based hospital physicians network, call it Well-Web.com, wants to optimize value/ethics congruity with online patients and their virtual communities. Using the DMS framework as a strategic dashboard, Well-Web selects one or more relational value quadrants for composing digital marketing mix strategy. Given the healthcare market focus, the “hyper-real” and “post-human” quadrants would

cultivate dynamic and deep digital content experiences for both customer and community participants. Hyper-real relationships might include virtual world interaction with personified avatars and animated video-game like electronic environments. Post-human relationships could involve smart bodily implants programmed with automated sensors to signal health status (e.g., nervous system, respiratory system, circulatory system, muscular-skeletal system, etc.). The two relational value (“U-space”) quadrants can operate independently or in concert, with collaborative virtual world interaction in animated healthcare facilities and collective monitoring of cyborg system signals.

Next, the DMS framework is applied as a strategic dashboard to lock onto congruity coordinates with digital marketing mix triangle vectors. Starting with “intelligence”, Well-Web would direct content value creation toward offerings that fit online patients’ dual value/ethics preferences, as well as sustain a fixed value/ethics function in the patients’ healthcare routine. Simultaneously, Well-Web would create value in the direction of digital community stakeholders, with content access patterns that have supportive fit and sustain fixity. These “intelligence” vector directions encode customer and community realm profiles. An example of “intelligence” vector value creation that combine “hyper-real” and “post-human” quadrant relationships is virtual diagnosis using digital implant signals and animated scenarios composed with healthcare facilities and medical staff avatars.

After discerning “intelligence” to create value, Well-Web would develop digital “intimacy” through value creation functions. For both customer and community realm participants, “intimacy” would customize the animated virtual diagnosis animation by encoding flexibility into the healthcare scenarios while also reinforcing the fixity of the content experience. A wide range of customer demographic and lifestyle adaptations could be collaboratively enacted in the healthcare scenario. At the same time, the virtual

diagnosis animation could be tailored to community stakeholders by incorporating economic environment insurance protocols, instilling social-cultural environment civil liberties, including multiple technology environment platforms, and imparting political-legal environment medical information privacy. “Flexible” customization of digital implant signals could be developed by scheduling the type and frequency of customer health status updates, with anonymous aggregate reports for community stakeholders such as insurance companies, employers, and biotech research institutions.

Once the virtual diagnosis scenario has been customized, Well-Web would deliver optimal value channel “interaction” for both customer and community realm participants. These online value channels are configured from the entire spectrum of digital media networks including computer servers, smart televisions, mobile communication, and bodily cyborg sensors. “Interactivity” mediates the flexibility of content experience customization and the fit with core content experience value/ethics needs. Consequently, the value delivery network for customer realm patients and community realm partners has adaptable bandwidth, but also bounded value/ethics aims. It is possible for a virtual diagnosis scenario designed for employers and employees to exclude access by government agency networks to preserve civil liberty. Alternatively, Well-Web could stratify virtual diagnosis access for stationary non-mobile residential networks to assure the quality of implant signals and interactive scenario selections.

Accordingly, this limited application scenario for the DMS framework system parameters can clarify scholarly and strategy contributions. Marketing theory scholars can appreciate the revival and logical integration of authentic Functional School (Alderson 1957) features like prolificacy as fit, permanence as fixity, and plasticity and flexibility. Marketing strategy scholars and practitioners can acknowledge the operational design of strategic dashboard instruments based on innovative marketing

concept advances. Still, the scenario is neither an exhaustive nor exclusive representation of the DMS framework.

NORMATIVE RESULTS – DMS STRATEGY IMPLEMENTATION OUTCOMES

Ultimately, the DMS system parameters are implemented to achieve results and further theoretical research. These implementation outcomes are based on the normative operation of digital market(s) strategy in the customer and community realms. Accordingly, the focus shifts from conceptual design and operational parameters to implementation competency. Following Wacker’s (2004) formal conceptual definitions, customer and community outcomes are denoted as “predictive properties.” Accordingly, “Predictive properties usually are discovered deductively during theory development. However, predictive properties differ from the logical properties since they typically build on the logical properties of the theory to predict specific outcomes”. (Wacker, 2004, p.638)

For clarity sake, the DMS framework uses the terms structural concept properties and operational system parameters to indicate the connotative and denotative aspects of theory construction. Wacker (2004), on the other hand, describes those connotative and denotative aspects respectively as “logical properties” and “predictive properties”. The discussion of outcomes predicted by DMS system parameters explains how congruity is achieved in the customer and community realms.

DMS framework implementation outcomes achieve congruity between the customer and community realm by drawing on marketing studies of societal well-being (Andrews & Whitney, 1976; Sirgy & Lee, 2008, Sirgy et al., 2006; Sirgy et al., 2007). The specific competencies of engaging and embracing are attributed to congruity outcomes in the customer and community realms respectively. Engaging is the performance competency

required for a company enterprise to plot relationship strategy angles and digital marketing mix roles that satisfy customer value. Engagement is measured by the synchronization of relational time and the significance of cognitive sharing within the customer realm circle. Embracing is the performance competency required for a company enterprise to probe community ethics using relationship angles and digital marketing mix roles. The depth of ethical embrace is measured by the duration of relationships with community stakeholders and the diameter of well-being within the community realm circle. Although the DMS framework is validated by deducing normative outcomes for the customer and community realms, it is also designed to facilitate the kinds of positivist micro/macro marketing system results advocated decades prior by Arndt (1980).

DMS Customer Realm Outcomes – Engaging Competency

Like a cell within water, the DMS framework's customer nucleus is permeated by fluid digital company and community transvections. Individual and societal congruity results from the fact that customer and community realms are symbiotic not separate. Theoretically, the customer engaging competency extends Bowden's (2009) "customer engagement" framework as a measure of digital content experiences. More precisely, the engagement competency borrows, "... an approach that encompasses an understanding of the role of commitment, involvement, and trust in the creation of engaged and loyal customers" (p. 63).

The DMS concept represents this dual congruity outcome of self and social engagement by placing the customer realm in the center of the digital marketing mix triangle, revolving around the dual axes of *market value* and *market ethics*. Madrigal and Bousch (2008) have shown that micro customer satisfaction engaging can complement macro community stakeholder embracing. This digital market premise was tested by Mathwick (2002) for

online retailing and found to substantiate the link between customer and community norms. Mirroring the DMS framework, the study found that online customer interaction occurs within the context of a relational value typology. More importantly, intelligent content features can easily adapt and augment digital market consumption with collective community causes. Digital markets enable congruity between customer and community realms to be literally encoded in intelligent content and accessed through interactive channels. Digital markets enhance the confluence of market value and market ethics with interactive and immersive customer experiences. Digital content includes a wide range of audio and visual features to improve the cognitive rapport of online experiences (Dabholkar, 2006; Kim & Lennon, 2008). Immersive 'virtual world' environments and personalized avatars offer digital market experiences that can be designed to impart an infinite variety of market value and market ethics outcomes (McGoldrick et al., 2008; Wood, 2011; Wood & Solomon, 2009;). Therefore, the focus of customer engaging is on tailoring fluid digital experiences and tracing ubiquitous digital network touch-points.

However, when the customer and community realms share digital content and connections ethical consequences arise. The benefits of interactive technology and information transparency also carry digital market costs (Baye, Morgan, & Scholten, 2003; Molina-Castillo, Jose, & Lopez-Nicolas, 2007; Xie et al., 2006). In particular, risks like information privacy and identity theft. As a result, ethical outcomes like trust and security reinforce the market value of digital content experiences (Aiken & Boush, 2006; Clemmons & Bradley, 2001; Harridge-March, 2006; Luo, 2002; McKnight et al., 2002). Digital strategies that achieve individual market ethics outcomes like trust increase loyalty among customers in vulnerable online interactions (Reichheld & Scheffer, 2000; Zwick & Dholakia, 2004). These dual customer realm outcomes of market value and market ethics achieve congruity between company strategy and both customer and community well-being (Ashworth & Free

2006; Langenderfer & Cook, 2004; Sirgy et al., 2006).

Digital customer realm outcomes are predicted by coupling the theory of consumer risks (Bauer, 1960; Brooker, 1984; Dowling & Staelin, 1994) with the theory of distributive justice (Beauchamp & Bowie, 2004; Klein, 2008; Rawls, 1971). In the DMS framework, consumer risks are represented by a 5 pointed pentagon comprising Bauer's (1960) original risks plus an augmented "information" risks for digital market interactions. The theory of distributive justice is represented by Beauchamp and Bowie's (2004) index for guiding community stakeholders in distributing justice.

The theory of consumer risks (Bauer, 1960; Brooker, 1984; Dowling & Staelin, 1994) models market value as a perceptual outcome associated with market interaction. However, marketing scholars have suggested that consumer risks for traditional markets are insufficient for information risks in the digital market (Caudill & Murphy, 2000; Miyazaki & Fernandez, 2001). Accordingly, the DMS augments Bauer's (1960) theory with a fifth "information risk" that corresponds to the cost/benefit tradeoff of sharing information through online interaction. This fifth *information risk* is the focus of digital marketing efforts to improve trust through privacy programs that strengthen customer relationships with ethical practices (Chellappa & Sin, 2005).

Rigorous research has proven the construct validity of consumer risk theory for predicting the value of digital customer engagement. In the digital marketing literature, Chen and Dubinsky (2003) analyzed risk factors as predictors of online customers' "valence of experience" and confirmed their significance based on regression analysis. In the field of computer science, Bhatnagar, Misra, and Rao (2000) applied logit analysis to an array of consumer risk factors to predict Internet shopping motives and measures. Anderson and Srinivasan (2003) also used regression analysis to analyze "E-Satisfaction and E-Loyalty" and

found that the consumer risks associated with satisfaction, trust, and perceived value are significant moderating variables for digital market customers. These empirical results affirm the normative outcomes predicted by the DMS concept, with high tautological relevance. These digital information risks extend beyond the boundaries of traditional market consumer risks for product/service performance, financial benefit/cost, sociological appeal, and psychological affirmation. In addition to augmenting traditional consumer risks, the information risk overlays and maps the customer's personal identity profile to facilitate digital market interaction. This interface quality of information risk can operate as a data security shield, social networking safeguard, as well as through advanced software applications like intelligent agents, avatars, and 'shop-bots.' Information risks are unique because they directly relate to individual customers' concerns about digital market identity concerns and the collective community's coordination of digital market integrity.

DMS Community Realm Outcomes – Embracing Competency

The community realm is modeled as the outer wall of the DMS cellular framework. Like the traditional marketing system, the DMS exists within larger electronic, social, and natural systems. The outer community realm filters this fluid pool of meta-system influences into digital macromarketing conditions. Congruity with these macromarketing conditions is achieved through shared value/ethics interactions with community stakeholders. In this way, the DMS framework models community embracing within the strategic context of relational value propositions and adaptive marketing mix triangle functions. Logically, the normative outcomes for DMS community realm engagement are predicated upon an expansive range of marketing ethics, social marketing, and macromarketing research (Andreasen, 1994; Brey, 1999; Ferrell & Ferrell, 2008; Hauptman, 1996; Hunt & Vitell, 1986; Laczniak & Murphy, 2006, 2008; Murphy et al., 2005),

which constitute the conceptual domain limitations.

By focusing on a dual goal of market value and market ethics, the DMS also embraces community realm stakeholders through strategic practices that support distributive justice (Ferrell & Ferrell, 2008; Laczniaik & Murphy, 2008). Whereas customer realm outputs produce individual value/ethics congruity, community realm outcomes preserve collective value/ethics congruity. Internet technology has the capacity to improve stakeholder transparency, community embracing, and social media collaboration in a manner that has been found to complement strategic objectives (Kim et al., 2008; Rao & Quester, 2006). When information risks are borne by community stakeholders, not just customers, unethical digital marketing practices become macromarketing patterns and policies. For instance, safeguarding micro digital market identity also secures macro digital market integrity. Thus, minimizing risks to market value can maximize the rewards from market ethics.

The DMS achieves confluent customer/community outcomes by delivering micro strategies that embrace distributive justice involving macro stakeholders (Ferrell & Ferrell, 2008; Klein, 2008; Laczniaik & Murphy, 2008). That means recognizing how ethical concerns regarding economic, political/legal, social/cultural, technological, or ecological issues can be mediated in a manner that contributes to customer value. The “General Theory of Marketing Ethics” put forward by Hunt and Vitell (1986, 2006) shows how external environment aims shape micro-marketing actions. In a more strategically oriented manner, Shultz (2007, p.293) frames the competency of community realm engagement for a, “... complex, conflicted, and increasingly interdependent world in which marketing can and should play an important role”. Moreover, given the symbolic nature of digital market community conditions (Venkatesh, 1999), confluent value/ethics intelligence should improve the ability of marketing strategists to

discern the “macro meaning of meanings” (Kadirov & Varey, 2011).

These dual micro/macro community realm outcomes are predicted according to Beauchamp and Bowie’s (2004) distributive justice index for marketing, based on Rawls’ (1971) original “Theory of Justice”. The six indicators direct the actions of individual “persons” (entities) to improve the distribution of justice within society. However, unlike moral statutes, the index components are neither exhaustive nor mutually exclusive. Rather they are a situational heuristic for ethical and equitable digital community outcomes. Importantly, the distributive justice index achieves collective policy ideals by attenuating individual participant interactions. This makes the heuristic index especially well suited for assessing market transactions, as well as the fluid interaction of digital market participants. The six index components are:

1. To each person (entity) an equal share
2. To each person (entity) according to individual need
3. To each person (entity) according to (liberty) rights
4. To each person (entity) according to individual effort
5. To each person (entity) according to social (and economic) contribution
6. To each person (entity) according to merit.

Consequently, the DMS customer realm designs digital congruity among market value and market ethics by coupling the augmented theory consumer risk (Bauer, 1960; Brooker, 1984; Caudill & Murphy, 2000; Dowling & Staelin, 1994; Miyazaki & Fernandez, 2001) with the adapted rules of distributive justice (Beauchamp & Bowie, 2004; Klein, 2008). This innovative representation of confluent micro/macro digital marketing strategy outcomes is depicted in Figure 4 using a pentagon for the five market value risks and a hexagon for the index of six market ethics rights.

CONCLUSION -- FUTURE DIGITAL MARKET-SPHERE PLANNING

The digital market(s) metamorphosis gives rise to new marketing theory problems for scholars and strategists. Marketing scholars must reconfigure concepts designed for traditional market processes to reliably design theoretical research. Similarly, marketing strategists should reframe planning instruments to realize digital enterprise results. This exploratory study of digital market(s) research has advanced a comprehensive Digital Market-Sphere (DMS) framework to systematically unify and strategically orient conceptual development.

Consequently, the DMS responds to the dearth of theoretical models in the electronic commerce literature, in comparison to empirical and practitioner related research. Following theory construction tenets (Sutton & Staw, 1995; Wacker, 1998; 2004), the DMS framework was presented in three phases – conceptualization, operationalization, and implementation. In particular, the DMS concept discussion addressed five factors – realms, rules, restrictions, relationships, and roles.

The DMS concept connotes structural properties by distilling seminal marketing theory and current digital market(s) models. Those DMS structural properties include the composition of realms, the condition rules, and the conceptual restrictions. The DMS concept was defined as a holistic digital macromarketing systems concept for capturing the digital market(s) condition rules of ubiquity and fluidity. Likewise, the DMS concept denotes system parameters by designing an ontological digital market(s) strategy framework. An explanation of operational DMS framework relations and roles was grounded by applying proven concepts from the marketing and digital marketing literature. Digital market (s) relations and roles operationalize concepts for imparting strategic orientation and micro/macro Service-Dominant logic. Essentially, the DMS framework is designed as a digital market (s) strategy dashboard with a window framed by relational value quadrants and a triangular

directional gauge for aligning digital marketing mix vectors with value/ethics outcomes. Logical deduction was used to predict the DMS framework's implementation outcomes. Specifically, the congruity principle was used to discern normative customer and community realm results. Empirical research and statistical analysis was referenced to validate the normative outcomes predicted for the DMS framework's implementation.

Looking forward, the proposed DMS framework propels marketing scholars and strategists farther into the digital market future. This impetus is necessary for marketing theory given the transformative digital market forces requiring new planning paradigms. Several limitations mitigate the efficacy of marketing theory propositions set forth in the DMS. Among these is an incomplete meta-analysis of the digital market literature to comprehensively chart the convergence and divergence among academic studies. Instead, this study offers a model for integrating and implementing prevalent digital market constructs. Also lacking are application case scenarios and conclusive statistical data analysis to empirically validate the qualitative and quantitative merits of DMS propositions. By contrast, the DMS framework is developed as an exploratory study and supported by logical analysis. Still, the DMS concept adheres to theory construction criteria and has been presented in a cogent and contemporary method. Therefore, this study can serve as a catalyst for the holistic and systematic examination of digital market phenomena.

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