Organizational Sustainability in Online Higher Education: Reframing through the Viable System Model

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Abstract

Higher education remains embroiled in transition driven by cost of attendance, technological advances, globalization, hyper-competition, and stakeholder expectations. Concurrently, advances in online education have prompted increased integration within the educational enterprise. Not only are modern institutions faced with the necessity to respond to the changing educational environment, they must establish capabilities to sustain online education into the future. This paper examines the viable system model (VSM) as a mechanism to deal with this complexity and offers a framework through which leadership and management in online education can increase understanding of organizational sustainability and systemic management.

Introduction

In 2012, individuals in the United States with a baccalaureate degree earned 90% more annually than those with a high school diploma and were less likely to be unemployed by 50% (U.S. Department of the Treasury with the Department of Education, 2012). In the same year, the Sloan Consortium [Online Learning Consortium] reported 85% of public universities considered online education critical to their long-term strategies (Allen & Seaman, 2013). Yet concurrently, higher education began transition driven by cost of attendance, funding changes, technological advances (Ehrenberg, 2012), hyper competition and globalization (Hotho, 2013), and stakeholder expectations (Beattie, Thornton, Laden, & Brackett, 2013). Based on these and other factors, Beaudoin (2015) expressed institutions of higher education must design a future inclusive of face-to-face and online instruction with appropriate support structures.

As an indicator of its significance, the U.S. federal government began tracking enrollment in online education as a component of IPEDS data in 2012 (U.S. Department of Education, 2014). Prior to the inclusion in IPEDS data, research groups such as Babson Survey Research Group collected data and found online education growing at a faster rate than traditional higher education, but also showed a decrease in the growth rate over time (Allen & Seaman, 2015). Subsequently, the first two years of IPEDS data revealed the lowest growth rate to date (Allen & Seaman, 2015). This new data set has yet to produce significant findings from research; however, some groups such as Eduventures (2012) purport the growth decline has placed online education in the early stage of product maturity where demand stabilizes, and the product must find away to move into sustainable production. Faced with more than mere survival, modern institutions must respond to the changing environment demonstrating competencies of complex, highly adaptive organizations that persist through actions of learning, adaptation, and evolution (Barber, Donnelly, & Rizvi, 2013; Camelia & Marius, 2013; Hartley, 2015; Rios, 2012). The integration of online education into the traditional higher education enterprise and the need to establish capabilities to sustain such endeavors continue to prompt research and scholarly activity (Beaudoin, 2013). As precursor to a recent Delphi Study, the viable system model was examined as a mechanism to describe and analyze online programs in higher education. This paper delivers a synopsis of the examination which was subsequently used in the Delphi study to develop an organizational sustainability index for online programs in higher education.

The Viable System Model – History and Current Application

General systems theory came to prominence in the 1950's and 60's through the work of scientists such as Ludwig von Bertalanffy, Norbit Wiener, and Ross Ashby and ushered in a new way of thinking about complex issues (Rios, 2012). Methods were introduced to define and classify systems, it was acknowledged systems interact within themselves and with their external environments, and theories of cybernetics, or control, were postulated (Beer, 1964; Katz & Kahn, 1978; Wiener, 2013). A new field of study, management cybernetics, soon emerged through which these principles were applied to the management of organizations (Beer, 1964; Rios, 2010) and the viable system model was introduced. Beyond mere survival, viability describes the capacity of an organization to survive over time in the face of predictable and unpredictable changes from known and unknown forces that operate upon it (Rios, 2012).

Among the many disciplines spawned from general systems theory, systems thinking is described as an "an approach that views systems as wholes rather than compilations of individual components and allows one to see the interconnectedness and interdependencies of agents within systems" (Davis, Dent, & Wharff, 2015, p. 335). The semi-independent agents are connected by common goals or viewpoints and they interact in a non-linear fashion (Davis et al., 2015). As an established model, the VSM presents a mechanism to deal with this complexity by viewing an organization as a whole and with respect to the environment in which it operates; rejecting the myopic tendency to disassemble the pieces into non-interacting silos (Rios, 2012). In fact, Pickering (2004) described the VSM as "a kind of techno-social diagram of an adaptive democracy – a map of how people might be arranged and connected to involve them all in their collective adaptation to a fluctuating and ultimately unknowable world" (p. 513).

The viable system model describes an external environment and five sub-systems representing functions required for sustainability. Three of the sub-systems – policy, development, and delivery management – provide a meta-management structure for operational, or production, units while a coordination sub-system links the operating units to one another and to meta-management. Finally, acting much like a connective tissue, communication channels provide information flows within the organizational system.

Meta-management. Meta-management is composed of Systems 5, 4, and 3 which represent policy, development, and delivery management, respectively. System 5 provides the policy function which establishes the mission, vision, and identity of the organization; sets organizational values; and establishes institutional culture. It determines who we are, what we do, and which customers we serve (Beer, 1985; Hoverstadt, 2008; Rios, 2012). System 4 is often referred to as development. The development function is focused on the external environment and the implication of environmental changes to the organization. It is concerned with changing the business through growth and development as opposed to running the business (Rios, 2012). Because there are no facts about the future, it relies on possibilities, probabilities, opinions, views, and intuition (Rios, 2012). The third component of meta-management, System 3 can be described as delivery management. The delivery management function is focused on the "here and now" management of the production function. Providing resource allocations as well as maintaining accountability from the production units are responsibilities of delivery management (Rios, 2012).

System 3* provides monitoring and involves occasional checks that bypass unit management and directly engages with production activities (Hoverstadt, 2008). It provides managers with the confidence that expectations match the reality of what is happening and provides those being managed with the confidence that management understands the issues faced (Hoverstadt, 2008).

Production. System 1, or the production function, includes operating units that are responsible for producing the goods and services of the organization (Beer, 1985; Hoverstadt, 2008; Rios, 2012). In this context, production refers to programs that create and/or deliver teaching and learning through online education. It exists alongside other production units and is subject to policy, delivery management, and development.

Coordination and communication. System 2 provides coordination between the individual production units and manages any conflicts that arise. Its primary function is to control oscillation and promote stability (Beer, 1985; Hoverstadt, 2008; Rios, 2012). Communication channels act as a connective tissue between the five sub-system functions and provide balance through interaction (Hoverstadt, 2008).

Online Higher Education within the Viable System Model

Any open business environment incorporates the complexities brought about by the many elements that affect customers and suppliers (Beer, 1985). These include the behavior of competitors, new technologies, legal changes, environmental regulations, sociological and demographic changes, globalization, and emerging markets (Beer, 1985; Rios, 2012). In this context, changes in competition are discussed through the lenses of disruptive innovation and customer demand.

Disruptive innovation. Disruptive innovations often enter the market as newcomers with lower quality and lower price compared to existing market players (Christensen & Eyring, 2011). In so doing, market share is gained followed by gradual improved performance. Ultimately, the market incumbent is displaced or seriously threatened by the newcomer (Simonson, Smaldino, & Zvacek, 2015). The dilemma for most institutions of higher education is the very dangerous and highly competitive middle – neither highest in quality nor lowest in price (Christensen & Eyring, 2011).

One example of a current potentially disruptive innovation is massive open online courses (MOOCs) (Hoxby, 2014). MOOCs depart from tradition toward a Fordist delivery of education (Simonson et al., 2015). The Fordist approach involves massive production for massive consumption. Open access to education and the massive scaling through online provisioning is expected to prompt considerable research questions and studies (Yuan, Powell, & Olivier, 2014). Although the literature is not decisive on the full impact of the MOOC phenomenon, areas within higher education such as pricing models and marketing strategies will likely change as a result (Yuan et al., 2014).

Demand for online. Higher education currently experiences contradictory demand from students. While student preference remains tied to face-to-face learning, there exist simultaneous demand for the opportunity to learn online (Simonson et al., 2015). This dichotomy prevails primarily because student preference is not the only driver in educational decisions (Simonson et al., 2015). The ability to engage in learning from any location at any time has become a requirement for many students (Hanna, 2013) and emerging technologies have made it possible for institutions to reach larger numbers of students than ever before (Soderstrom, From, Lovquist, & Tornquist, 2012). To support growing organizational demands, additional suppliers have entered the market as partners to institutions of higher education. These partners offer the full value chain of services to bring and sustain academic programs to the online market with flexibility to offer institutions options to outsource some or all the online value chain of services (Gallagher & LaBrie, 2012). These factors continue to influence the environment of online education and lead into the review of the five organizational systems described within the viable system model.

System 1. The operating units are responsible for producing the goods and services of the organization comprise System 1 (Rios, 2012). Delivery of online programs involves attentiveness to planning for student services, students with disabilities, international students, field internships, and remote lab work as well as management of curriculum, staffing, faculty effectiveness, and assessment of outcomes (Kearsley, 2013). In addition, significant research and discourse is found regarding faculty resource planning and quality assurance.

Faculty resource planning. Universities have recognized the need to adopt faculty models that accommodate the dynamic environment of online education but have struggled to align faculty demand with traditional on-location hiring practices (Johnson & Turner, 2009). Timely resource allocation adjustment has been a complex process affected by time, cost of hiring, contractual obligations, and the inability to substitute across disciplines (Johnson & Turner, 2009).

Quality assurance. Quality in online education is not definitive; however, institutions have recognized the need to adopt a system for evaluation (Shelton, 2010). In 2000, the Institute for Higher Education Policy published a study that identified 24 quality indicators that were subsequently validated and revised by Shelton (2010) to develop the *Quality Scorecard for the Administration of Online Program*s. While learning outcomes were included in the quality indicators, the primary goal was to evaluate the online program itself and included categorical factors of (a) institutional support, (b) course development, (c) teaching and learning, (d) course structure, (e) student support, (f) faculty support, and (g) evaluation and assessment (Shelton, 2010).

Simonson et al. (2015) presented quality as a specific area of interest for accreditation agencies. He described guidelines published in 2009 by the Council of Regional Accrediting Commissions that included (1) alignment with institutional mission; (2) integration in institutional planning and evaluation processes; (3) incorporation in institutional governance and academic oversight; (4) curricula with equitable academic rigor; (5) institutional effectiveness and continuous improvement; (6) faculty qualifications; (7) effect student services; (8) adequate resources; and (9) assurance of integrity. In addition, he discussed practices that directly relate to quality control including minimum course expectations for students, instructor training and certification requirements, mandatory course evaluations, and periodic program evaluations.

System 2. System 2 provides coordination between the individual operating units (Systems 1) and manages any conflicts that arise (Beer, 1985; Rios, 2012). Its primary function is to control oscillation and promote homeostasis (Beer, 1985; Rios, 2012). Common components within System 2 include information systems, internal services and support, standards, and communication mechanisms (Rios, 2012). Learning management systems, instructional design, faculty development, student support services and technology systems reflect the characteristics of System 2 (Rios, 2012).

Learning management systems. According to the EDUCAUSE 2014 core data survey, 99% of higher education institutions have deployed learning management systems (Dahlstrom, Brooks, & Bichsel, 2014) establishing the LMS as a mission critical component of university infrastructure (van Rooij, 2012). Providing flexibility and near 24x7 access to course content, learning management systems are most often accessed during non-work hours, increasing the need for extensible non-traditional support systems (Kaliski, Booker, & Schumann, 2012).

Instructional design. Instructional design has played a critical role in successful online course content. While instructional design can be accomplished in a traditional setting solely by the faculty member (Brigance, 2011), a more collaborative approach that couples the skills of trained instructional designers with the expertise of faculty on the subject matter has been shown to produce the best quality on a consistent basis (Chao, Saj, & Hamilton, 2010). Additionally, Chao et al. (2010) found familiarity between the instructional designer and faculty member enhanced the course development process and instructional designers were more helpful to less experienced faculty members or when major revisions to courses were required. Klein and Jun (2014) validated competency in instructional design required specific skills and professionals in the field of instructional design should be expected to update and enhance their instructional design and technology skills to affect successful collaboration with faculty in course design and development (Klein & Jun, 2014).

Faculty development. Technological advancement has changed the way universities deliver content and has led to a pedagogical review of content delivery (Soderstrom et al., 2012). Soderstrom et al. (2012) found long term stability of online learning was largely dependent on the acceptance of academic staff and faculty readiness was a vital component of technology implementation. Baran and Correia (2014) observed teaching support and professional development programs were critical for aiding faculty in problem solving and discovery within online learning. They developed a framework for professional development that included technology support, pedagogical support, design and development support, peer support, and communities of practice. In a study conducted by Gary (2013), student adoption of LMS was positive, but the highest frustration of students was that faculty did not widely use the system. According to Baran and Correia (2014), faculty are the key to reforming online learning and the transition to online environments requires technological support, pedagogical support, design and development support, peer support, and a positive organizational culture.

Johnson, Wisniewski, Kuhlemeyer, Isaacs, and Kryzykowski (2012) challenged the notion of faculty resistance with the idea that while faculty members were told they needed to adopt technology, they lacked an understanding of why or how they should incorporate it into their classroom. Johnson et al. (2012) suggested faculty learning should be a priority and development programs may involve a shift to active learning and stress andragogic learning theory as most students engaged in online education are adult learners.

Student support services. According to Britto and Rush (2013), successful online learning also involves comprehensive student support services comparable to services delivered to traditional on-campus students. Designed to enhance the online student experience and indirectly support and improve student retention, such services included orientation for online students, readiness assessment, a help desk for technical support, and institution-wide approaches to student retention (Britto & Rush, 2013). In a 2018 report by the Boston Consulting Group and Arizona State University, support for online students was identified as a key practice in providing online learning. The report called for "a network of remotely accessible support structures that are adapted to the distinctive challenges facing online students" (p. 33). Services discussed include retention coaching, online tutoring, and 24x7 technical support. In addition, automated alert systems were encouraged to assist faculty and advisors with online learners. Student engagement was also purported as having different characteristics than is seen with traditional on campus students. As the primary content delivery shifts in the online environment, the faculty must focus on identifying and resolving gaps in student learning, delivering student specific feedback in a timely fashion (Bailey, Vaduganathan, Henry, Laverdiere, & Pugliese, 2018).

Technology systems. Technological innovation is often a catalyst for change within educational institutions (Beaudoin, 2013). System availability significantly and positively impacted students' perceived value of online education and students identified information and communication technology as a critical component for successful online education (Kilburn, Kilburn, & Cates, 2014). A solid technological campus infrastructure and facility must be maintained with continual investigation into emerging technologies, such as cloud services, to support a dynamic and responsive infrastructure (Gutierrez-Carreon, Daradoumis, & Jorba, 2015). In two separate studies, technology challenges and the need to invest in infrastructure, equipment, and technical support were identified as key factors (Pawlyn, 2012; Sutherland-Smith & Saltmarsh, 2010). However, Mukerjee (2014) discussed the difficulty of technological agility, particularly where the supported business processes were complex and the technology systems had been customized making it organizationally difficult to quickly respond to change. The need for responsiveness did not, however, preclude planning but instead called for a reduced timeframe between planning and

implementation. Technological agility was characterized as flexible, reconfigurable, and scalable.

System 3. The "here and now" operational management of the comprehensive set of Systems 1 is the responsibility of System 3 (Rios, 2012; Schwaninger & Scheef, 2016). It is responsible for managing the cohesiveness of the organization. This cohesiveness is supported through resource allocations such and human resources, finance, and information technology as well as through performance management to maintain accountability from Systems 1 (Hoverstadt, 2008; Schwaninger & Scheef, 2016). Objectives must be aligned with the larger organization and resources must be balanced amongst competing demand to ensure optimum usage and performance (Hoverstadt, 2008). Relevant functions within online higher education discussed in the literature include governance, regulatory and legal requirements, business models, marketing, and change management.

Governance. Policies provide the decision-support for managers, so decisions are not made in an ad-hoc manner (Moore, 2013). According to Simonson and Schlosser (2013), polices for distance education can be described in seven categories: (1) academic; (2) fiscal; (3) faculty; (4) legal; (5) student; (6) technical; and (7) philosophical. In addition, these policies should be seamlessly integrated into other institutional policies that guide educational programs (Simonson & Schlosser, 2013).

Historically, shared governance ensured inclusion of academics in the decision-making process (Stensaker & Vabo, 2013). However, the marketization of higher education has introduced external stakeholders as candidates in the decision-making process, thereby shifting the upper hand away from academics and toward a corporate model of streamlined decision-making (Stensaker & Vabo, 2013). Critics of shared governance have questioned its effectiveness when difficult strategic change is needed or when agile, dynamic decision-making is needed (Stensaker & Vabo, 2013). However, new modes of governance have not been accepted by academics that criticize administration for exercising too much control over academic issues. In a study with five universities, Stensaker and Vabo (2013) explored four models of shared governance and concluded an entrepreneurial model emerged dominant in which leadership was expressed as imperative for organizational change.

Regulatory and legal requirements. Regulations exist at the federal, state, and local levels that impact student financial aid, copyright, peer-to-peer file sharing, and disability resources (Simonson et al., 2015). The Digital Millennium Copyright Act (DMCA) was passed in 1998 and restricted access to certain course materials by online learners by eliminating the concept of fair use (Shelton & Saltsman, 2005). To mitigate the negative impact of the DMCA, the Technology, Education and Copyright Harmonization (TEACH) Act provided guidance for accredited, non-profit institutions regarding the use of copyright protected material (Shelton & Saltsman, 2005). While allowing distance educators to use nondramatic works and portions of dramatic works in course materials the educator agrees to abide by the terms of the TEACH act and adds additional complexity to online administration (Shelton & Saltsman, 2005).

Anti-discrimination laws require that a reasonable effort be made to accommodate the needs of students with disabilities (Crichton & Kinash, 2013). This includes three critical components of course content: (a) audio must be accompanied by text transcripts; (b) tags must be used in web design compatible with screen readers to describe the site content; and (c) links on a page (which accommodate screen readers) are preferred over lengthy web page designs (Crichton & Kinash, 2013). The Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act also require "standard assistive technologies" be made available to persons with disabilities (Simonson et al., 2015). Section 508 of the Rehabilitation Act applies to educational organizations that receive federal financial aid and dictates that websites (including learning management systems) be fully accessible (Simonson et al, 2015).

Business model. Business models determine how an organization meets need, organizes, and manages cost and expenses to remain financially stable (Rubin, 2013). According to Christensen, Horn, Caldear, and Soares (2011), business models applied to higher education include components of value proposition, resource utilization, business processes, pricing and cost controls, organizational operations, and characteristics such as formalization, centralization, standardization, and specialization. Simonson et al. (2015) asserted a business plan should justify online educational programs, identify the targeted student population, include a recruitment plan, and project cash flows acceptable to the institution. Planning processes should include analysis of implementation and ongoing costs as well as strategies to recover the cost of the program or generate additional revenue (Simonson et al., 2015).

Other factors contribute to the complexity of online education business models, including current trends in state support. While overall enrollment in institutions of higher education rose by 20% between 2002 and 2012, state funding for higher education decreased by 12%, resulting in a 24% decrease in the average funding per student (U.S. Government Accountability Office, 2014). As a result, many universities have looked to online education to increase revenue and decrease cost (Soderstrom et al., 2012). However, while many believe online education is

more cost effective than traditional instruction (Soderstrom et al., 2012), others purport the cost of online education is non-the-less high (Simonson et al., 2015). Careful attention must be given to the financial impact of instructional technology infrastructure, instructional design, faculty salaries, course development, administrative personnel costs, and program promotion (Simonson et al., 2015). Expectations for flexible, affordable education have overtaken the education market (Parvu & Ipate, 2012; Sutherland-Smith & Saltmarsh, 2010). Consequently, some business model theorists have recommended decoupling teaching and research with the online context designed for teaching primarily adult populations while maintaining the traditional university setting focused on research and teaching recent high school graduates (Rubin, 2013).

Marketing. Historically, university administrators have not subscribed to the need for marketing because sales, promotion, and competition were seen to contrast with the mission and values of higher education as a public good (Camelia & Marius, 2013). However, as early as the 1970s, researchers such as Krachenberg argued universities utilized marketing techniques (Camelia & Marius, 2013). More recently, students have become demanding consumers of higher education based on value and selection opportunities (Parvu & Ipate, 2012). Within the past decade, the higher education market has become highly competitive and as such institutions have openly adopted marketing strategies to attract students and sustain perceived value (Camelia & Marius, 2013).

Change management. University organizational units have traditionally managed learning in a decentralized, semi-autonomous and specialized fashion (Goolnik, 2012). Online learning challenged tradition with the introduction of centrally managed systems (Goolnik, 2012). Such initiatives generated mistrust on the part of academics that viewed these systems as a means to monitor and as a discouragement for diverse curricula, research projects, and new development of critical models of teaching and learning (Goolnik, 2012). In fact, Goolnik (2012) argued change management strategies in the adoption of learning management systems are most effective when they incorporate faculty members in the decision-making process and encourage a dialogue to examine the usefulness of such systems. He cited fear as the largest obstacle in addition to the need of academics to be convinced new methods have true educational value. Similarly, Bianchini, Maxwell, and Dovey (2014) suggested academic leaders must establish a sense of urgency, create a steering council, establish a vision, communicate the vision, empower action, enable and celebrate short-term wins, operationalize improvements, and monitor new behavior until institutionally rooted.

System 4. The focus of system 4 is "there and then" as opposed to the "here and now" of System 3 (Rios, 2012). It is focused on the environment and the implication of environmental changes to the organization (Rios, 2012). System 4 is also concerned with growth and development to survive into the future (Schwaninger & Scheef, 2016). Areas within the realm of System 4 and relevant to online higher education include strategic management and planning as well as emerging technologies.

Strategic management and planning. The distance education planning taxonomy consists of five elements: mission, vision, plan, policies, and documents and records (Simonson & Schlosser, 2013). The mission defines the organizations purpose and goals while the vision statement articulates the values of the program and future aspirations (Simonson & Schlosser, 2013). The distance education plan provides a direction, or a map, beginning with current state of distance education and ending with a desired outcome at a future date or period (Simonson & Schlosser, 2013). Responsiveness and adaptability are key in strategic planning for distance education due to the dynamic environment spurred by globalization and technological improvements (Watkins, Kaufman, & Odunlami, 2013). Strategic planning should identify and align distance education with the institution's mission and vison; identify the needs of distance education; prioritize the needs; identify solution requirements and alternative solutions; and select the solutions to be implemented (Watkins et al., 2013). Simonson and Schlosser (2013) identified the lack of strategic planning as a key barrier to online education.

Continuous evaluation, emerging technologies, and adoption. Data suggest technology will continue to affect education in the coming decade; however, researchers and analysts are unable to predict what those changes will be, what conditions will exist for institutions, and what methods will be used to elicit adoption (Ng'ambi, 2013). Modern technology means faculty are equipped to teach from anywhere using a variety of technologies (Barber et al., 2013). Entrepreneurial academics are finding new ways to create and deliver education that is in high demand from discerning students (Barber et al., 2013). Based on three NMC Horizon Projects, Johnson and Adams (2011) identified the following emerging technologies based on time to adoption: cloud computing, mobiles, open content, game-based learning, augmented reality, gesture-based computing, and learning analytics. Ng'ambi presented guidelines for teaching with emerging technologies and concluded a larger population of educators use emerging technologies to support traditional prescriptive learning with a smaller population of educators using emerging technologies to achieve interactive transformative learning (Ng'ambi, 2013).

Social networking technologies have been identified with potential to stimulate student participation and student

ownership in the learning process (Hustad & Arntzen, 2013). However, the adoption of such technologies is dependent on organizational and management initiatives to address copyright rules, intellectual property, and ethics (Hustad & Arntzen, 2013). In addition, social networking technologies must be integrated with the learning management systems to provide optimal enhancement to the student-centered learning experience (Hustad & Arntzen, 2013).

System 5. System 5 establishes the mission, vision, and identity of the organization (Rios, 2012; Schwaninger & Scheef, 2016) and sets organizational values (Schwaninger, 2015). It positions the organization within the recursive super-system and establishes boundaries of the environment in which the organization operates (Rios, 2012; Schwaninger & Scheef, 2016). One of the primary facets within online higher education for which System 5 is responsible is institutional culture.

Institutional culture. H. K. Wang, Tseng, and Yen (2014) found trust was positively related to knowledge sharing, promoting organizational knowledge to achieve a competitive advantage. Trust was categorized as (a) employee trust in their organizations, (b) employee trust that the actions of their supervisors are beneficial to the organization, and (c) employee trust in their colleagues (H. K. Wang et al., 2014). Baran and Correia (2014) also recognized the need for an organizational culture in which online learning was academically respected and noted faculty members are the key to reforming online learning. Resistance to change, lack of shared vision, lack of strategic planning, slow implementation, and keeping pace with technological changes are key barriers to online education (Simonson et al., 2015).

Summary

Multiple factors currently exist that place online higher education at a pivotal juncture. While now recognized as a credible delivery method of higher education (Gallagher & LaBrie, 2012), many posit that online education has entered a saturated market (Simonson et al., 2015). Higher education is experiencing changes driven by funding reductions, market competition, technological advances, consumer preference, and other factors (Beattie et al., 2013; Ehrenberg, 2012; Hanna, 2013; Hotho, 2013; Simonson et al., 2015). While many universities have incorporated online education into institutional strategies, the attributes and competencies for sustainability and growth remain largely undefined (Beaudoin, 2015). This paper presented the viable system model (VSM) as a framework which has the capacity to assist leadership and management in the understanding of systemic management, current organizational structures, and practices (Rios, 2012).

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