Efficiency and Effectiveness in Higher Education:
A Stakeholder Perspective

Kristen Maceli
Pittsburg State University

Stephen V. Horner
Pittsburg State University

Donald Baack (corresponding author)
Pittsburg State University
Kelce College
1701 South Broadway
Pittsburg, KS 66762
dbaack@pittstate.edu
620-235-4583

Abstract

This work considers the relationships between the terms "efficiency" and "effectiveness" within the context of collegiate education. The terms are defined and briefly examined. Relationships between the concepts are noted. Then, the stakeholder perspective is added to the analysis. Implications and conclusions are drawn.

A turbulent environment surrounds the world of collegiate education. Numerous new challenges have emerged, including demographic shifts, social trends, technological influences, economic forces, and increasing competition. In terms of demographics, the number of potential students has begun to decline and will continue to drop in the coming decade, as fewer children were born between the years 2008 and 2011, thereby reducing the pool of potential new high school graduate applicants (The Hechinger Report, 2018).

Social trends include an entrenched perception by a significant number that a college degree holds little or no value, especially in relation to the high cost of obtaining a diploma (Pew Research Center, 2016). In one survey, the majority of members of one major political party viewed collegiate education as bad for the United States (Turnage, 2017).

Technology clearly has shifted the delivery of instruction in a variety of ways, most notably through the incorporation of online and hybrid courses. This, in turn, has altered the entire fabric of what was previously termed "distance learning." Faculty and students both have adapted quickly to this new reality.

Economic conditions within the United States also exert an influence. In what may appear to be a contradiction, a strong economy often results in lower enrollments. More individuals seek collegiate degrees during economic downturns (Schmidt, 2018).

Perhaps the greatest factor; however, is the increasing number of online degree programs delivered by new institutions. The inception of The University of Phoenix's online system in 1989 has been followed by a number of entrants into the marketplace for high school graduates, military veterans, and non-traditional age individuals seeking degrees.

This complex web of complicating forces places stress on many traditional colleges, especially those not considered to be "top-tier" institutions. Enrollments have declined in many

such organizations for several years, and predictions are that the trend will continue and increase in the coming decade. The situation has led to the closing of several smaller colleges, such as Dana College in Nebraska, Mount Ida College in Massachusetts as well as pressured mergers with other institutions, including Wheelock College's absorption by Boston College and Hamshire College's desperate search for a partner in 2019 (Camera, 2019).

One tool available to those seeking to untangle the influence of a dynamic new world on higher education would be to incorporate an analysis of the concepts of efficiency and effectiveness (Price, 1972). The potential implications of such an approach may be to add insights into how various groups view the two concepts in light of their specific interests. From there, it may be possible to outline or suggest avenues by which administrators and others can understand and potentially strategically respond to this more turbulent atmosphere.

This work considers the relationships between the terms "efficiency" and "effectiveness" within the context of collegiate education. First, the words themselves are briefly defined and described. Second potential relationships between the concepts are examined. Then, the stakeholder perspective will be added to the analysis. Using this type of inquiry, implications and conclusions may be drawn.

Effectiveness

For many years, concepts regarding what constitutes an effective organization have varied. As described in Baack (1989) and in numerous other sources, ideas follow several paths, as summarized in Table 1.

Applications of these concepts to higher education might result in confusion or the conclusion that several of the ideas simply do not apply. For example, the majority of major colleges and universities do not seek to create profits, as they have been founded by and are

supported by state governments. Many do not seek to grow, as some have reached maximum capacity and indeed must create screens and selection devices to maintain certain levels of enrollment. In contrast, the emerging number of for-profit educational institutions heightens the emphasis on profitability as well as growth.

At the same time, smaller private colleges may find several of the definitions noted in Table 1 to be germane. Smaller institutions do indeed face survival issues in some instances and must seek to create balance in the dynamic environments in which they now operate. Doing so requires achieving various goals, although those objectives may have shifted or been modified during the past two decades. Participant satisfaction stands as a crucial outcome, both in terms of faculty and staff and as it applies to students. Growth may not be possible; however, staving off decline or lower enrollments might likely become a high priority.

As a result, the notion of "effectiveness" may be in the eyes of the beholder – or those responsible for the maintenance of the college or university (Scott, 1979). At the very least, any conceptual development or research investigation would need to clearly define and operationalize how key people and stakeholder groups view the idea.

Table 1
Conceptualizations of Effectiveness

Definition	Primary Benefits	Primary Problems
Profitability	Easy to measure	Emphasizes short term
		May lead to shortcuts and ethical problems
	Reactive to shareholder interests	Less applicable to volunteer organizations and nonprofits
	Related to other definitions	
Survival	Emphasizes long term	May survive without being the most viable
		Ignores competitors
		Does not equally apply to newer organizations
Growth	Related to survival	Assumes unlimited potential for expansion
		Ignores life cycles
Goal Achievement	Allows for flexible criteria over time	Goals may be poorly defined
		Ignores influence of organizational politics
System Development	Accounts for environmental factors	May be too vague to measure
	Accounts for changing circumstances	Only applies when all parts of the system align correctly
Balance with Environment	Accounts for system components	Difficult to measure
	Incorporates other criteria (survival; growth)	
Participant Satisfaction	Emphasis on employee well-being	Does not consider other criteria (growth; survival)

Efficiency

As many management experts have noted over the years, efficiency involves "doing things right," whereas effectiveness means "doing the right things." In essence, an efficient operation transforms "inputs" into "outputs" with little wasted time, motion, or resources (Hall, 1980). Many note that efficiency may be more easily numerically measured than some of the effectiveness concepts. One key issue involved would be how these two concepts should be viewed and/or applied in times of crisis or organizational stress. Consequently, the relationships between efficiency and effectiveness should be carefully considered.

Efficiency-Effectiveness Relationships

Four possible relationships exist between concepts regarding efficiency and effectiveness. Each receives some support from the literature, in terms of their existence as well as the implications for individual organizations and groups of organizations. Table 2 displays these relationships.

Table 2
Efficiency – Effectiveness Relationships

	Efficiency	
	Efficient	Inefficient
Effective	Efficient & Effective	Inefficient & Effective
Ineffective	Efficient & Ineffective	Inefficient & Ineffective

Effectiveness

Efficient and Effective

In a Venn Diagram, a nearly perfect overlap between the two concepts would exist. Historically, many management theorists argued the efficiency either (1) leads to or (2) is the same as effectiveness. An efficient operation generates economies of scale, thereby leading to increased productivity and profitability. Much of the scientific management approach presumes that efficiency leads to effectiveness, both for the company as well as for individual workers (Taylor, 1911). In later years, Argyris (1967) and Likert (1967) appear to suggest that efficiency serves as an effectiveness criterion, or in essence, is the same thing. In an ideal setting, an organization achieving both efficiency and effectiveness would plausibly enjoy the highest order of success, yet doing so may also be the most difficult objective to achieve.

Inefficient yet Effective

A case can be made, that, in many instances effective companies tolerate and perhaps even encourage certain levels of inefficiency. The reasoning behind such a perspective emerges from the concept that any organization sponsoring creativity and innovation would logically expect and accept set-backs and even failures – which suggests an inefficient use of resources. Doing so, however, invites discovery, improves morale as workers do not fear punishment for well-intentioned mistakes, and fights off organizational stagnation. These outcomes bode favorably for long term profitability and company survival. The foundation for this approach may be found in the classic book *In Search of Excellence* (Peters & Waterman, 1982).

Efficient but Ineffective

Two explanations may be made for an efficient/ineffective relationship. One would be that, although the organization has achieved efficiency internally, the organization has failed to match the demands of the external environment. For example, typewriters may have been produced at highly efficient levels in the late stages of that product life cycle; however, computer keyboards better meshed with the environment present, thereby hastening the demise of the typewriter production industry. In essence, the transformation process of the organizational system remained highly efficient yet the outputs found no place in the larger world.

The second explanation posits that an overemphasis on efficiency stands in opposition to eventual effectiveness. For example, Cameron (1983; 1980; 1978) wrote that managers who face external challenges in a less inviting or even hostile environment resulting in declining levels of sales and profits, often become short-sighted and overemphasize efficiency through measures such as cost-cutting and layoffs. In other words, leaders in those circumstances look to tangible, measureable outcomes where the results of their actions would be readily visible, yet fail to see the big picture in terms of how to more effectively respond. Further, certain more visible measures of effectiveness, such as participant satisfaction (through absenteeism, tardiness, and turnover rates), would turn downward due to a strong focus on efficiency only.

Inefficient and Ineffective

The worst case scenario, and one predictive of organizational failure, would be an instance in which a firm is both inefficient and ineffective. Unless drastic measures are taken, such a company faces a dismal future.

Organizational Stakeholders

The stakeholder perspective has experienced significant attention from management theorists as well as those in various industries. CEOs from several major companies recently commented that companies should seek to meet the interests of all stakeholders rather than merely serving the desires of stockholders (Gelles & Yaffe-Bellany, 2019). One primary advantage to viewing organizations through the stakeholder lens is the perspective's inclusion of both internal and external publics in the evaluation of the various objectives and outcomes.

Bedeian (1986) notes three components of the stakeholder model. First, the degree of power and prominence of individual stakeholders varies. Some hold greater clout and are able to exert a great level of influence. Second, the means of influence by which stakeholders seek to influence organizations varies, including the use of both direct and indirect tactics. Third and most vital, thoughtful managers seek to balance the interests of stakeholder groups. They recognize that at times stakeholders prefer goals which may conflict with- or partially stand in opposition to each other. Table 3 identifies prominent stakeholder groups in the world of higher education. An analysis of the criteria each might use regarding efficiency and effectiveness follows.

Table 3
College and University Stakeholders

Students

Faculty

Local communities

Employers

Alumni

Governmental agencies

Larger society

Administration

Employees

Students

Consider what a traditional student might view as efficient. Such variables are likely to include

the cost (tuition, books, lodging), the schedule, the number of hours required to finish, and any

other ingredient that might lead to a smoother path to eventual graduation. The ability to study at

home, at any time, would logically be viewed as an efficient path to a college degree.

Effectiveness concepts would begin with future employability and perhaps the

development of a positive social network while enrolled and following graduation. Grade point

averages and scholastic honors would also become likely measures of a student's personal

effectiveness.

Faculty

Efficiency and effectiveness criteria might vary widely based on the institution in which a faculty

member operates. For a "research 1" university professor, efficiency could be considered in light

of free time to conduct research combined with access to the types of resources needed to engage

in such academic pursuits. At the other end of the spectrum, a faculty member at what is primarily a teaching institution might find efficiency to be more related to class size and other factors that assist in the teaching/learning process along with the atmosphere present on the campus environment.

For most professors, feelings regarding effectiveness would likely center on ingredients such as compensation packages, tenure, and promotion. An additional important consideration would be the overall atmosphere present within the campus community. These individuals would also value the overall health of the larger organization, as its success in terms of financial viability and prestige affect their own personal outcomes.

Local Communities

Relationships between local colleges and universities with their surrounding communities pose a number of possibilities related to efficiency. Community leaders such as city governments and police departments might hope the institution would operate with a minimal amount of resources required and few disruptions in terms of political protests, minor crimes, and any other nuisances present in some colleges. From there, discovering what constitutes efficiency from the viewpoint of local residents may be difficult to discern.

Effectiveness may more be easily identifiable. Contributions to the local economy in terms of jobs and student and visitor spending in town would be welcome. Raising the standard of living within the community in other ways also appears to be a desirable outcome. As an example, many colleges provide venues for- and attract entertainers to perform within the city, thereby increasing the attractiveness of the community to new businesses and other organizations. A college of business often tracks and provides insights into local economic activity for those in the world of local commerce.

Employers

An efficient higher education process, in the eyes of employers, would be one in which little additional training would be required to fully prepare a new worker. Effectiveness likely would be viewed in terms of the types of knowledge and skill sets the individual acquired or developed while in school.

Alumni

It would be difficult to assess or gauge what an alumnus might view as efficient, looking back at a school the individual attended. Efficient transmission of documents such as transcripts and letters of reference for employers or graduate schools might be one criterion.

Effectiveness, on the other hand, would include standard outcomes including survival, growth, reputation or prestige of the institution, balance with the environment in terms of positive, active relationships with other stakeholders (local community, government, employers), and other outcomes, such as successful sports teams.

Governmental Agencies

Efficiency objectives, from the perspective of governmental officials, likely would include the conclusion that funding for collegiate institutions is being spent wisely. At the extreme, a governmental agency might view redundant programs across smaller colleges and universities within a state as being inefficient. Thus a state such as Missouri, with numerous colleges spread across the area, might appear to be inefficient if each one offers degrees in business, social sciences, technology, athletics, and so forth. A more efficient approach would be to specify the degrees which each college would be allowed to offer (e.g., business at one school, social

science degrees at another, etc.), as well as offering combination programs in which students

take courses toward graduation from more than one college

The effectiveness goals of governmental agencies that contribute large amounts of

funding to public colleges and universities are likely to mesh in with those of local community

officials and employers. Governments logically would seek and prefer institutions that properly

prepare individuals to be employable, tax-paying citizens that do not engage in criminal activities

and do become involved in efforts such as voting and taking part in charitable activities. In

addition, some governments would be inclined to look favorably upon colleges that produce

useful information for local and regional areas, such as agricultural innovations and techniques

for universities found in states with more rural populations. Other contributions include

development of entrepreneurs and the creation or adaptation of other items or business practices

that improve the lives of local constituents.

Society

Citizen views of collegiate training vary widely. Those inclined to prefer low tax rates, and those

who have little or no interest in attending college themselves or sending their children to study in

one would hold widely differing views as to what constitutes both efficiency and effectiveness,

especially when compared to persons holding degrees.

As has been noted, a substantial percentage of individuals believe that university

education constitutes a negative force in society. Therefore, keeping expenditures to an absolute

minimum seems most prudent.

In contrast, other members of the same national population consider advanced training to

be the key to achieving country's best interests. Such individuals would favor funding for

collegiate while insisting that the money is spent wisely.

University Administration

The stakeholder perspective places those in charge of post high school education programs (junior colleges, small colleges; universities) in the center of the circle. Regents and top university administrators look to balance the interests of the stakeholders noted above as well as others (watchdog groups, food service companies, textbook and study material providers). The constraints facing management groups include (Barnes and Noble Next, 2018; Wiley Education Services, 2019):

- Rising costs

- Outside pressures regarding student loan debt creation

- Shifting expectations regarding what constitutes a complete higher education program

- Student engagement issues (reflected in dropout rates)

- Decline in percentage of full time, terminally-degreed faculty members as compared to adjunct professors

Given the variety of constituents involved, each with a differing perspective regarding the natures of both efficiency and effectiveness, the challenges to university administrators appear to be dramatic and immediate. These pressures can be exacerbated by critics, such as writers for *Forbes* (2017) magazine, who suggested that the nation is "overinvested in higher education," and is influenced by "intrusive federal regulation." The magazine continues that vocational education programs provide threats to traditional college and university training. Also, the magazine continues that "Universities presidents kowtow to protesters who try to impose their often warped set of values upon others." Recent scandals involving payments and false documents regarding a student's application, thereby leading to selection from more prominent

institutions have generated serious negative publicity for collegiate hierarchies (Wong, 2019).

Clearly, the environment surrounding collegiate administration has never been so turbulent.

Implications

Against the backdrop presented in this brief review of efficiency and effectiveness from a

stakeholder perspective, several potential responses emerge. First, each individual institution of

higher education should begin with precise and concise definitions of what will be considered as

measures of effectiveness.

Second and possibly most important, individual university administrators will find it to

be advantageous to collectively express how they have achieved, and will continue to achieve

effectiveness in light of the current challenges facing their institutions. These accomplishments

must be clearly and loudly presented to all stakeholders involved, including politicians,

governments, local citizens, businesses, the media, and, perhaps most crucially, to critics. Some

of the effectiveness criteria that deserve emphasis include the following.

College graduates are:

- Trained to enter the major professions (doctor, lawyer, accountant, research scientist, etc.)

- Less likely to smoke

- More likely to regularly exercise

- Inclined to enjoy better health

- Active participants in democracy (voting rates)

- Less likely to go to jail or commit crimes

- More likely to enjoy higher levels of job and life satisfaction

- Expected to live longer

- Employed in jobs that pay higher wages

A strong case can be made that these are indeed effectiveness outcomes.

Third, the same individual and collective sets of persons in charge of higher education programs should express their views regarding the nature of efficiency in circumstances in which it is so easy to make the case that their operations are inefficient. Using the efficiency-effective relationships noted early in this report may be of some assistance. For instance, smaller on-campus class sizes may appear to be inefficient from the vantage-point of some; however, a great deal of research indicates that those classes may also be the most effective, especially in terms of student engagement, retention, and efforts to assist those who may have come from less ideal environments while growing up – such as those living in poverty or taught in less effective grade and high school systems.

Fourth and finally, administrators should consider the perils of overemphasizing efficiency at the expense of effectiveness. Many years ago, Cameron (1978, 1980, 1983) warned against this exact problem as it applies to higher education. In any budget, a balance between inflows and outflows should be sought. In today's environment, the focus in many organizations has shifted to limiting expenditures rather than seeking ways to increasing revenues. College administrators must carefully consider innovative yet responsible methods for raising dollars that do not involve compromising quality. Simply raising tuition, for example, reduces access to college for individuals from lower income families and increases student debt. Consequently, other approaches incorporating governmental and private sources of revenue may be more advisable.

In summary, the stakeholder approach to understanding efficiency-effectiveness relationships may provide a useful guide to understanding what has taken place in recent years within the world of higher education. The same perspective may also pose some helpful alternatives to those placed in charge of maintaining these valuable (and often under-appreciated) members of the larger society. Then, and only then, will a true balance with the environment become truly possible.

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