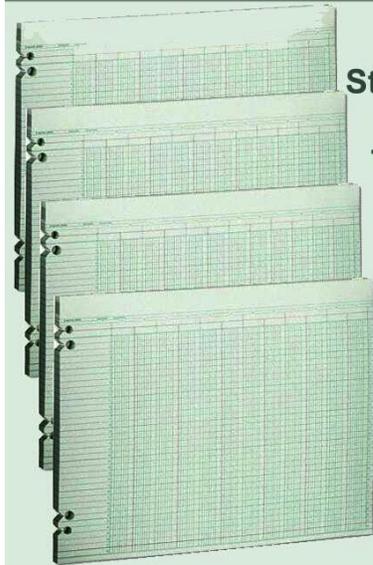


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**Strategy Mapping and the Balanced Scorecard:
Tools for Assessing an Accounting Program**

by **Larry N. Bitner and Mary D. Myers**



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ABSTRACT

The purpose of this paper is to develop a model for strategic planning and performance measurement that can be used in the assessment of academic accounting programs. Using the balanced scorecard developed by Kaplan and Norton, the authors identify four interrelated initiatives or perspectives that define the value-creating process. These initiatives are then used to construct a comprehensive strategy map which illustrates the pathways to meet objectives. Target metrics specific to an accounting program are identified that, when monitored, will serve to assess progress toward achieving performance



objectives. Finally, the authors drive the balanced scorecard down to the individual faculty level. Scorecards are created for individual faculty members along with performance metrics to guide their actions. The authors posit that as constituencies manage their metrics, the accounting program will move toward its goal of excellence.

INTRODUCTION

The need for assessment in academia has been increasingly recognized by entities both internal and external to the university. Declining enrollments in some schools and decreases in financial resources have forced universities to require strategic planning and assessment at all levels. Further, accrediting agencies are increasing their emphasis on proper planning and assessment. This paper develops an appropriate planning and assessment process for an accounting program using the balanced scorecard (BSC) and a relevant strategy map. Originally developed for the private sector, the BSC offers a comprehensive means of assessment and a framework for the management of program by “translating an organization’s mission and strategy into a comprehensive set of performance measures that provides the framework for a strategic measurement and management system” (Kaplan and Norton, 1996). As originally designed, the BSC includes four critical performance areas or “perspectives,” along with multiple performance measures that serve to assess whether objectives have been or are being accomplished.

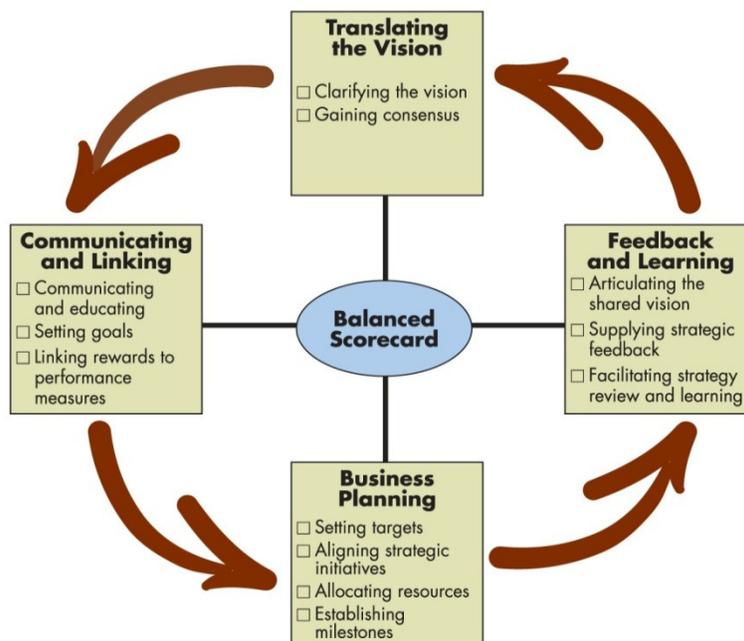
While the use of multiple performance measures has been commonplace in the assessment of accounting programs (Gainen and Locatelli, 1995 and Apostolou, 1999), the BSC offers the advantage of linking measures directly to mission and strategic plan. In this paper, a specific mission is proposed, and the initiatives are redefined for an academic setting. This is followed by the development of a comprehensive strategy map that informs participants in the program as to what actions need to be taken to achieve program objectives. Performance measures for each initiative are identified. Finally, metrics are developed for each performance measure. We believe this paper provides a more fully specified model for measuring performance at the department level. The strategy map provides a feature not seen in most BSC developments for academic institutions. Finally, we drill down to the lowest level and suggest a format for applying the BSC for individual faculty performance measurement.

THE BALANCED SCORECARD

Traditionally employed in the for-profit sector, the balanced scorecard measures performance along four perspectives: financial, customer, internal business processes, and learning and growth. The integrative nature of the scorecard is illustrated in Exhibit 1 below. The design of the BSC requires a clearly defined mission statement that is communicated to and accepted by participants. Strategies or goals are identified for each perspective and should reflect the mission of the entity. For each goal, multiple performance measures are identified, along with expected success rates.

Exhibit 1

Managing Strategy: Four Processes



Source: Kaplan, R. and D Norton, Harvard Business Review, January February 1996



The intuitive appeal of the BSC lies in the fact that it retains the measures of financial performance traditionally employed in the for-profit sector – the lagging outcomes performance measures – while adding leading indicators that drive future performance. Traditional financial measures tend to be ex post and exclude any external nonfinancial measures. The addition of measures along the other perspectives adds other dimensions to the measurement system. Most are nonfinancial in nature and provide external and ex ante perspectives. These tend to be the drivers of performance. The end result is that the BSC reflects not only how well an entity is performing, but it also tells it how to get to where it wants to be. In other words, it is not just a performance assessment tool, but it is also a strategic planning and communication device.

Current AACSB standards require that academic business units undertake procedures similar to those required for the development and use of the balanced scorecard. The driving force for any business program should be its mission statement. The mission then provides a framework for a strategic management system. Assessment methods should provide feedback on how well the academic program is performing according to its mission and strategy. Further, it should provide opportunities for changes in the strategy itself.

THE BALANCED SCORECARD IN AN ACADEMIC SETTING – LITERATURE REVIEW

The potential of the BSC as a tool for assessment of academic entities was addressed by Chang and Chow (1999). They surveyed 250 heads of U.S and Canadian accounting departments regarding the level of implementation of the BSC and its potential benefit for accounting programs. Respondents were given a list of four components or perspectives and were asked to accept them or write in changes they deemed appropriate. For each component deemed appropriate, they were asked to select from a list of goals and associated measures they deemed appropriate for inclusion in a BSC. The 69 respondents indicated a low level of implementation, but they were positive about its potential ability to benefit their programs. Based on responses regarding the latter, the authors state: “responses suggest that in due course, a number of accounting programs will be in a position to share their experiences with the balanced scorecard or similar type of approach.” Debriefing telephone interviews revealed that impediments to use of the BSC include extra workload for faculty, absence of ability to tie performance measures to a reward system, the program’s ability to construct an appropriate instrument, sentiment of faculty regarding



responsibility for strategic planning in general, resistance to change, and financial resources necessary to develop and maintain.

In a similar vein, Bailey et al. (1999) surveyed 500 deans randomly selected from an AACSB mailing list. When asked the extent to which a BSC can be beneficial to their school, only three of the 39 respondents gave an answer below five on a 10-point scale. Yet, when asked the extent to which their schools had implemented such a system, the mean response was only 3.9. The authors conclude that these results suggest that “business schools will likely find the balanced scorecard to be useful.”

One of the earlier implementations of the BSC was reported by O’Neil et al (1999). A faculty committee at the Rossier School of Education at the University of Southern California adapted an Academic Scorecard based on the work done by Kaplan and Norton. Recognizing that all four perspectives as designed for businesses did not fit nicely in an academic setting, the committee made some modifications. The “financial” perspective was replaced with an “academic management” perspective, focusing on how the performance is viewed by the university leadership rather than by shareholders. In addition, the “customer” perspective was replaced with a “stakeholder” perspective, with students and employers identified as the most significant stakeholders. The authors note that a particularly favorable outcome was that the scorecard made it easier for the School to explain budget decisions in its budget plan by showing its relationship to particular scorecard indicators.

In a more conceptual approach, Storey (2002) examined whether the BSC could feasibly and usefully be deployed in schools in the UK. She examined an archive of responses to a governmental consultation document, *Professional Development: support for teaching and learning*, (2000, Department for Education and Employment). Her research suggests that there has been a “cultural change” within education that has increased the receptivity of educators to the principles embedded in the balanced scorecard. She posits that the use of the BSC offers several unique advantages (325):

- Although it employs the multiple measures concept, the BSC can serve to limit the number of measures to what are considered the key measures.
- Its use guards against suboptimization of behavior where pursuit of excellence in one area may result in neglect of other important areas.



- It requires wider involvement of participants in the education process by putting strategy and mission at the center of the process. As such, it helps achieve goals that have been agreed upon by participants.

Scholey and Armitage (2006) provide an example of a second-generation implementation where the process “begins with a succinct description of the mission and vision and employs a strategy map” (32). They describe how the second-generation BSC was used successfully to develop and implement a Master of Business, Entrepreneurship and Technology at the University of Waterloo, Ontario. With the exception of changing the customer perspective to stakeholder perspective, they use the four perspectives as in the Kaplan and Norton model.

Thomas (2007) also advocates a strategy map with the use of the BSC. He describes the framework used at Warwick Business School at the University of Warwick in the UK. This systems approach is summarized as follows (41):

- The strategy map provides the framework for strategizing about the school’s system dynamics.
- The BSC provides the means for monitoring, evaluating, and controlling the evolutionary path of the strategy.
- Performance gaps and weaknesses force continued attention on the process of strategic dynamics and change, highlighted both on the strategy map and the revised BSC model.

The systems approach described by Thomas reinforces the school’s mission/vision as the driving force behind the strategy map and the BSC.

In a similar framework, Drtina et al. (2007) report on how a “graduate school of business has begun using the balanced scorecard by first examining value congruence.” The thrust of the Drtina et al. case study is that the core values must be congruent with the vision and mission of the school and that these values are congruent among major stakeholders.

McDevitt et al. (2008) provide yet another case study of how the BSC was implemented in a school of business. The developmental phase involved broad stakeholder participation. This broader set of constituents permitted a reexamination of the traditional four perspectives of the BSC framework as originally designed for business. They decided that a more appropriate set for academic institutions should include the following five perspectives: growth and



development, scholarship and research, teaching and learning, service and outreach, and financial resources. An interesting outcome of the analysis of results was the recommendation for faculty worksheets which serve two purposes. First, they facilitate collection of some previously missing data. Second, they serve as personal reminders of the goals and objectives of the school, especially as they relate to each participant.

Finally, Beard (2009) reports on several BSC successful projects in higher education. One of those projects, Karathanos (2005), stressed how strategically aligned measures were critical to the first three winning applications of the Malcom Baldrige Award in education. In another study, Papenhausen and Einstein (2006) presented a successful implementation in a college of business. Additionally, Beard also reports on two successful college of business BSC implementations.

THE BALANCED SCORECARD FOR AN ACCOUNTING PROGRAM

With the exception of Chang and Chow, the research described above does not address the use of the BSC at the accounting program level. As in the second generation models described above, we propose a model that begins with the mission. The perspectives are modified to fit the academic mission. Finally, a strategy map is prepared to communicate and link resource usage to organizational objectives.

Mission

We will assume that the mission of the College of Business, and hence, the accounting program, is characterized primarily as “being an outstanding regional school by providing a quality teaching and learning environment for undergraduate students.” Other features include:

- Dynamic curriculum
- Related professional activities
- Faculty support for excellence in teaching and high standards of intellectual contributions



Establishing Program Initiatives

As noted in earlier research, the four traditional perspectives must be adapted somewhat for an academic setting. We use the four initiatives shown in Appendix A as surrogates for the traditional four perspectives. These are:

1. Student academic quality
2. Program quality
3. Internal processes
4. Skills and tools

These initiatives, along with appropriate measures, are presented on the next page in Exhibit 2 and are described in more detail in the subsequent discussion.



Exhibit 2: Program Target Metrics

Measures	Target Metrics*
Academic Quality of Student Output	
Recruiting Activity	Number of New Recruiting Firms Net change in number of recruiting firms
Starting Salaries	Change in Starting Salaries
Growth in Quality/Number of Majors	Declared Majors Changes in Major Average GPA of Majors
Test Results	Reported CPA Results/Pass Rates In-House Results
Program Quality	
Student Satisfaction	Changes in COB Student Exit Interviews Changes in Department Survey Results
Employer Satisfaction	Program Survey Results
Internal Processes	
Updated Classes	Number of New or Changed Courses Number of Team Taught Classes
Research Output	College Performance Measure Counts (e.g. from Sedona)
Maintaining AACSB Standards	Number of AACSB Qualified Faculty
Rigor in the Classroom	Relative Grade Distributions per Program Norms
Skills and Tools	
Training and Workshops	Number Attended
Funding Requests	Number Received/Requested
Involvement in Student Activities	Number of Events Sponsored/Attended
Advisory Council Recommendations	Number of Implemented Suggestions
Curriculum Reviews	Number of Reviews per Year
Faculty Satisfaction	Program Survey Results

*Target metrics will require more concrete specification unique to each school.



The fourth initiative of skills and tools is a surrogate for learning and growth. It includes the premise that in order to excel as an accounting program, a department must effectively utilize the recommendations of its advisory council. Based on these recommendations and input from the faculty, the department must regularly review its curriculum to insure its currency, relevance, and alignment with the mission of the university, college, and department. Additionally, resources must be adequate to provide training to the faculty. Further, it is important to maintain a professionally satisfied faculty, eager to perform the teaching, service, and research specified by the college mission. Finally, there must be evidence of faculty involvement in student activities outside the classroom. Departmental activities should provide a stage for showcasing students as well as exposing them to the professional accounting community.

The third initiative addresses the internal processes perspective. Satisfying students and employers require that we excel at certain internal processes. It is imperative that existing courses are kept current and new courses must be developed when necessary. Research output must be steadily produced from a breadth of participating faculty. Accrediting guidelines, such as those of AACSB, must be adhered to as appropriate. Grade distributions should be reflective of a rigorous program. To apply this measure, there should be some evidence that students with varying abilities are randomly distributed throughout all classes.

Meeting the quality goals of the accounting program drives the need for the second initiative. To achieve this initiative, the department needs to satisfy its major constituencies. We need to monitor whether our students are convinced that their efforts to matriculate through the program will lead them to meet their career or higher education goals. Similarly, there must be assurance that employers are content with the knowledge level and professionalism of student output. In many schools it is not unusual for a majority of program graduates to have earned credits in accounting internship programs. Measuring the satisfaction of the internship providers is a leading indicator of employer satisfaction.

The first initiative captures the ultimate goal of the department to produce a higher quality student output. Several surrogate measures are available to measure the quality of student output. Starting salaries as determined by the external market is a lagging measure of student value. Recruiting activity on campus would be a related lagging measure. Professional exam pass rates or scores would provide more immediate evidence of student value. Internal



measures indicating the value students place on the program are the growth in the number of majors or the increase in the number of major changes to accounting.

Mapping the Course

Simply developing the initiatives is not enough to drive the program to its goals. Administration, faculty, staff, and students need to know specifically what actions need to be taken to achieve program objectives. How do they best use the resources at their disposal? As is the case with most nonprofit organizations, many of the resources are intangible. In an educational institution, faculty skills, employer relationships, information technology are likely more important than the physical facilities available. Kaplan and Norton (2004) tell us that creating value from intangible assets is very different than creating value from tangible assets. Among other points made by Kaplan and Norton, these assets rarely create value by themselves. A strategy map uses the perspectives or initiatives set forth in the balanced scorecard to link resource usage to organizational objectives. Specifically, a strategy map is a visual representation of the required path to meet the critical objectives of the program. It is a cause and effect chain that clearly displays how to convert the program initiatives into the desired outcomes. The proposed strategy map for the accounting program is illustrated in Appendix B.

The lowest level of the map demonstrates the occurrences or events that, when addressed, will strengthen the skills and tools of the faculty needed to support the fourth initiative. These skills and tools represent the traditional learning and growth section of the balanced scorecard. It is imperative that these boxes contain occurrences or events that can be monitored with easily obtainable or constructed metrics.

Moving up a level on the map, certain internal processes must be continually improved if all constituencies are to be satisfied. Success at this level is clearly linked to the skills and tools improvement. As the skills and tools issues are addressed, classes will be updated to reflect new technology and ethical standards. Increased research output from the faculty should be expected to naturally follow. As the faculty members expand their knowledge through research, rigor in the classroom may be expected to improve. More relevant and lively discussions in the classroom brought about by more excited faculty and



students can easily lead to higher academic expectations. Finally, accreditation requirements will be more easily maintained.

Following the logical linkage up to the second level on the map gets the program even closer to its ultimate goals. A well constructed, continually evolving accounting program will maximize the value it can offer given the resources at the program's disposal. At this point students and faculty should be satisfied with the quality of the program. The final result where 'X marks the spot' on the map is the top level – an improved quality of student which leads to a highly sought after and well paid accounting graduate.

Measures Make it Work

Few would disagree with the soundness of the logic behind the construction of the strategy map. Some may argue that as long as the initiatives within the strategy map are communicated to all constituencies of the department, the scorecard project will effectively produce the desired outcomes. Although communication of the initiatives is certainly important, it is not enough to insure success. We believe the implementation and execution is far from complete at this point. If we believe the adage, 'we manage what is measured,' all milestones in the strategy map must be addressed as part of formal performance evaluation. For example, if only student evaluations and research lines are evaluated in evaluating faculty performance, faculty will focus primarily on those two areas. For the scorecard to be truly effective, all milestones must be addressed and part of someone's performance review. Clearly defined target metrics must be articulated and all of these must receive some weight in performance measurement. Further, these metrics must be easily obtained or constructed.

Exhibit 2 below provides some suggested program target metrics for the proposed strategy map. It should be noted that the metrics suggested here are only general. If adopted, more specific metrics would be required (e.g. a five percent increase in declared majors or a three new firms recruiting on campus). These metrics would, of course, be specific to each campus. Further, specific weights and scores would be assigned to each metric. These weights would reflect the importance of each metric to the mission of the program and the College. This would allow for tracking the individual score for each metric, as well as providing an overall score for the program that could be tracked over time. These scores will provide valuable feedback for closing the assessment loop.



Exhibit 2: Program Target Metrics

Measures	Target Metrics*
Academic Quality of Student Output	
Recruiting Activity	Number of New Recruiting Firms Net change in number of recruiting firms
Starting Salaries	Change in Starting Salaries
Growth in Quality/Number of Majors	Declared Majors Changes in Major Average GPA of Majors
Test Results	Reported CPA Results/Pass Rates In-House Results
Program Quality	
Student Satisfaction	Changes in COB Student Exit Interviews Changes in Department Survey Results
Employer Satisfaction	Program Survey Results
Internal Processes	
Updated Classes	Number of New or Changed Courses Number of Team Taught Classes
Research Output	College Performance Measure Counts (e.g. from Sedona)
Maintaining AACSB Standards	Number of AACSB Qualified Faculty
Rigor in the Classroom	Relative Grade Distributions per Program Norms
Skills and Tools	
Training and Workshops	Number Attended
Funding Requests	Number Received/Requested
Involvement in Student Activities	Number of Events Sponsored/Attended
Advisory Council Recommendations	Number of Implemented Suggestions
Curriculum Reviews	Number of Reviews per Year
Faculty Satisfaction	Program Survey Results

*Target metrics will require more concrete specification unique to each school.

The final piece necessary to make the scorecard work revolves around accountability. As the old adage tells us, managers manage what is measured. Not only must all the metrics described above be measured, the program must



be held accountable for meeting the target metrics set forth. Faculty must be encouraged to manage all the metrics if the scorecard is to work. That means meeting all target metrics must be part of a formal performance evaluation process. Much like the rubrics used to evaluate students, a weighting scheme that incorporates all the metrics to create a composite score must be devised. The all important issue is that the score matters and thus will influence behavior.

At the discretion of the program, scorecards may be established for each faculty member. The scorecard may assist each member in determining what specific actions he or she must take throughout the evaluation period to move the program toward its goals. It is extremely important that all faculty members participate in building this scorecard. Typically, individual scorecards include the two perspectives: skills and tools and internal processes. Exhibit 3 below displays such a scorecard that clearly is a takeoff of the program scorecard. For the skills and tools perspective, each faculty member would want to track attendance at student events, funding requests and workshop or conference attendance. To achieve program internal processes goals, each faculty member would track grade distributions relative to program norms, number of qualified research publications, and new courses or significant course changes she or he has made. As was the case with the program scorecard, the individual scorecards must matter. They must be part of an ongoing performance evaluation process. A weighting scheme reflecting the same values as the program scheme would be anticipated.

Exhibit 3: Individual Scorecards for Program Faculty

Measures	Target Metrics*
Internal Processes	
New Technology in the Classroom	Number of New Implementations
New/Updated Courses	Number of Changes or New Courses
Research Output	Counts per AACSB Standards
Rigor in the Classroom	Relative Grade Distributions per Program Norms
Skills and Tools	
Training and Workshops	Number Attended
Funding Requests	Number Received/Requested
Involvement in Student Activities	Number of Events Sponsored/Attended

*Target metrics will require more concrete specification unique to each school.



Impediments to Success

McCunn (1998) was one of the earliest to report on balanced scorecard failures when he estimated that as many as 70 percent of implementations had failed. Although implementation difficulties persist, the general sense is that the balanced scorecard has much more staying power than tools and techniques such as management by objectives (MBO) and process reengineering. Rigby (62) reports that the BSC has and is likely to continue to be one of the management tools that will increase in usage. Certainly, the demonstrated satisfaction of users of the BSC reinforces this projection. DeBusk and Crabtree (2006, 46) report that 88 percent of firms regularly using the BSC reported improvements in operating performance and 66 percent reported increases in profits.

Nonetheless, detractors of the BSC make legitimate points. On a macro level, criticisms of the BSC include the lack of any economic underpinning to provide theoretical support for the model. Further, there is not an inherent mechanism to systematically generate recommendations for management action. The lack of a single all inclusive performance metric is also considered a weakness.

At the firm level, a major complaint has been the lack of connectivity to the strategic plan. Certainly this runs counter to the intent of the BCS and should be addressed with good strategic mapping. However, even with good mapping problems can occur. These can be caused by any combination of several factors: poorly defined metrics, failure to act on negative signals, failure to revisit the scorecard and redesign it as conditions change, or the inability to analyze metrics on a real time basis. Another problem occurs when the scorecard metrics are used as a command and control instrument (dashboard approach) rather than as tools for employees to use to work together and solve problems. Despite these problems, the fact that 62 percent of firms in North America and 72 percent in Asia used the BSC in 2006 is an undeniable indicator of its viability. Further the satisfaction rate among all management tools for the BSC is significantly above the mean (Rigby, 2007). Operationally in an academic department, an obstacle to implementation is the effort it takes to maintain the system. It will require an ongoing commitment of time and resources to keep the scorecard current. Also, in order to impact behavior, there must be some demonstrable consequences of meeting or not meeting the goals as defined by the BSC. This depends, of course, on the autonomy and power of the department chair within the college.



CONCLUDING COMMENTS

Bailey et al. (180) conclude their survey of business deans about the usefulness of the BSC by stating that “business schools will likely find this approach to be worthy of consideration.” More recently, Scholey and Armitage (33) state:

We believe that as universities and colleges face increasing demands for innovative programs and fiscal and customer accountability, the number of balanced scorecard adoptions in higher education will increase.

We certainly agree that the BSC provides an excellent framework for managing the performance of not only business schools, but departments within those schools as well. Although the model developed here centers around an accounting program in a College of Business whose mission is primarily teaching-oriented, the core model should be a good starting point for any program regardless of mission. Here, program initiatives are based on a teaching mission, and the strategy map directly links activities to implementing these initiatives. Metrics, along with discussion of targets, are developed for assessment of how effectively the department is achieving its initiatives. A unique feature of the model is that the scorecard is driven down to the individual faculty member, along with performance metrics to guide their actions. We believe that as constituencies manage their own metrics, the program will move toward its goal of excellence.

The paper has been silent in terms of reward for individual faculty contribution to accomplishment of program initiatives. More research must be done to determine how the implementation of a BSC can be tied to a performance evaluation and reward system. Some possibilities include allocation of travel funds, increased non-instructional time for research purposes, and priority in teaching assignments. Certainly, for schools where the administration has control over annual salary increments, the BSC would provide documentable support for remuneration decision

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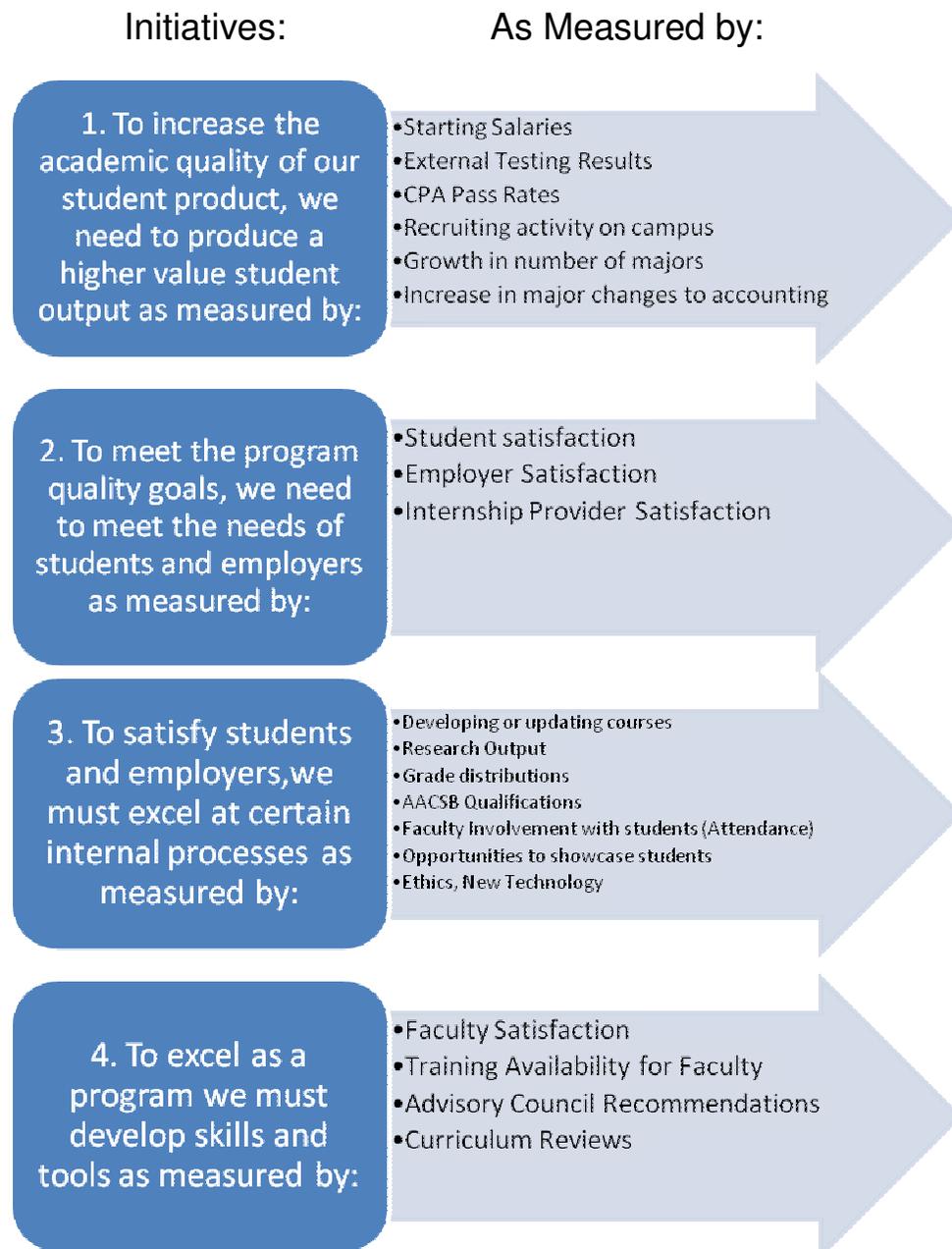
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APPENDICES

APPENDIX A: Balanced Scorecard Format for Accounting Department Initiatives



Appendix B: Accounting Program Strategy Map

