Data Driven SWOT Analysis

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Data Defined

da·ta

noun

1. a plural of <u>datum</u>.

2. (used with a plural verb) individual facts, statistics, or items of information:

These data represent the results of our analyses. Data are entered by terminal for immediate processing by the computer.

3. (used with a singular verb) a body of facts; information:

Additional data is available from the president of the firm.

Data. (2013). Dictionary.com. Retrieved from http://dictionary.reference.com/browse/data.

What is SWOT?

Strengths *(Internal)*	Opportunities *(Internal)*
Weaknesses *(External)*	Threats *(External)*

SWOT Analysis is a strategic planning tool to help decision making. It looks at and defines internal and external environments that an entity operates within and helps to define salient information to facilitate data driven strategic decisions.

Widely used in higher education.

A Brief History of SWOT

1960s → Stanford Research Institute (Now SRI International) → Robert Stewart Albert Humphrey & coworkers

Originally SOFT → "What is good in the present is **S**atisfactory, good in the future is an **O**pportunity; → bad in the present is a **F**ault and bad in the future is a **T**hreat."

In 1964 Urick and Orr at a conference changed the F to a W, and it has stuck as that, soFt to sWot

Aspects of SWOT

The four aspects of the SWOT analysis have been defined in a number of ways, but the following explanations seems useful for academic programs/units/ departments:

STRENGTHS – *attributes* of the unit/department/college/university that likely will be helpful to and have a positive effect on the achievement of the desired end state (the object of the analyses as defined above).

Strategies to capitalize on these strengths can be developed.

WEAKNESSES – *attributes* of the unit/department/college/university that likely will have a negative effect on achievement of the desired end state.

Strategies to minimize the effects of these weaknesses can be developed.

OPPORTUNITIES – *conditions external* to the unit/department/college/university that likely will have a positive effect on achievement of the desired end state.

Strategies to exploit these opportunities can then be identified.

THREATS – *conditions external* to the unit/department/college/university that likely will have a negative effect on achievement of the desired end state.

Strategies to defend against these threats can be identified.

SWOT Analysis Resource Page. (2013). Idaho State University. Retrieved from http://www.isu.edu/acadaff/swot/index.shtml

SWOT's Place in Assessment

On its own, it is said that a *SWOT analysis* is meaningless It works best when part of an overall strategy or in a given context or situation. This strategy may be as simple as:

Goal or objective
SWOT analysis
Evaluation or measures of success strategy
Action

This is sometimes known as the 4As model – **Aim, Assess, Activate and Apply** where:
Aim – is the Goal or objective
Assess – is the **SWOT** review itself
Activate – identify the strengths or measures of success and use them to advantage
Apply - take action

SWOT analysis (TOWS matrix) Made Simple. (2013). Retrieved from http://rapidbi.com/swotanalysis/

Program Assessment and Evaluation Model

MISSION
Vision

A

Situation
Analysis:
Internal /
External

**CURRENT
PROFILE**

Outcomes   →   Outcomes   →   Outcomes   →

*What do we do to achieve our
outcomes?*

How do we go from point A to point B?

How do we measure our progress?

B

Vision of
Ideal
Program
Profile

GOAL(s)

SMART
Specific
Measurable
Achievable
Realistic
Time-framed

SWOT

Specific: analysis of each
objective

General: use in situational
analysis to help describe
current situation / organization
/ profile.

Strengths	Weaknesses	Opportunities	Threats
Advantages of proposition?	Disadvantages of proposition?	Market developments?	Political effects?
Capabilities?	Gaps in capabilities?	Competitors' vulnerabilities?	Legislative effects?
Competitive advantages?	Lack of competitive strength?	Industry or lifestyle trends?	Environmental effects?
USP's (unique selling points)?	Reputation, presence and reach?	Technology development and innovation?	IT developments?
Resources, Assets, People?	Financials?	Global influences?	Competitor intentions - various?
Experience, knowledge, data?	Own known vulnerabilities?	New markets, vertical, horizontal?	Market demand?
Financial reserves, likely returns?	Timescales, deadlines and pressures?	Niche target markets?	New technologies, services, ideas?
Marketing - reach, distribution, awareness?	Cashflow, start-up cash-drain?	Geographical, export, import?	Vital contracts and partners?
Innovative aspects?	Continuity, supply chain robustness?	Tactics: eg, surprise, major contracts?	Sustaining internal capabilities?
Location and geographical?	Effects on core activities, distraction?	Degree program or course development?	Obstacles faced?
Price, value, quality?	Reliability of data, plan predictability?	Information and research?	Insurmountable weaknesses?
Accreditations, qualifications, certifications?	Morale, commitment, leadership?	Partnerships, agencies, distribution?	Loss of key staff?
Processes, systems, IT, communications?	Accreditations, etc?	Volumes, production, economies?	Sustainable financial backing?
Cultural, attitudinal, behavioural?	Processes and systems, etc?	Seasonal, weather, fashion influences?	Economy - home, abroad?
Management cover, succession?	Management cover, succession?		Seasonality, weather effects?
Philosophy and values?			

Data – Organic Sources

These are data that occur naturally as a part of day-to-day operations.

DO YOU COLLECT ANY OF THESE?

- Numbers of complaints

- Participation, attendance

- Program publications

- Institutional data (enrollment, GPA, courses, etc.)

- Student emails

- Meeting minutes, agendas

- Request for support

- Number of students served

- Log notes

- Etc.

New Data

These are sought after data to answer specific question(s). Data may be gathered to inform a response to a particular problem.

WHAT TO CONSIDER

- The outcome(s) to be measured

- The kind of information needed to indicate success

- How the information will be used

- By whom will the information be used

- The practicality or feasibility of gathering the data

- The resources needed to analyze, interpret, and report the data

Types of New Data - Indirect

	Type of Tool	Sub-Types	**Bloom's Taxonomy Alignment** Knowledge • Comprehension • Application • Analysis • Synthesis • Evaluation		
			Cognitive (Knowledge)	Affective (Attitude)	Behavioral (Skills)
INDIRECT Demonstrates knowledge or skill resulting from the learning experience	Questionnaire/ Survey (self report)	Alumni /Student Satisfaction Employer NSSE		X	
	Focus Group/ Internviews			X	
	Log Notes			X	X
	Grades GPA		X		

Types of New Data - Direct

	Type of Tool	Sub-Types	Bloom's Taxonomy Alignment Knowledge • Comprehension • Application • Analysis • Synthesis • Evaluation		
			Cognitive (Knowledge)	Affective (Attitude)	Behavioral (Skills)
DIRECT Measures student perception of the learning experience	Paper Essay		X		X
	Tests Exams	PRAXIS, GRE, LSAT, GMAT Locally written Exit	X		X
	Portfolio		X	X	X
	Course-embedded		X		X
	Observation				X

Regular Reports

These are data that institutions gather, use, and report on a regular basis. These data sets may be driven by accrediting, government, over sight agencies. Data may be available publically or not publically.

COMMON REPORTS

- Grade distribution

- Student profiles

- Retention and graduation rates

- Zip code reports

- Employee profiles

- Academic unit profiles
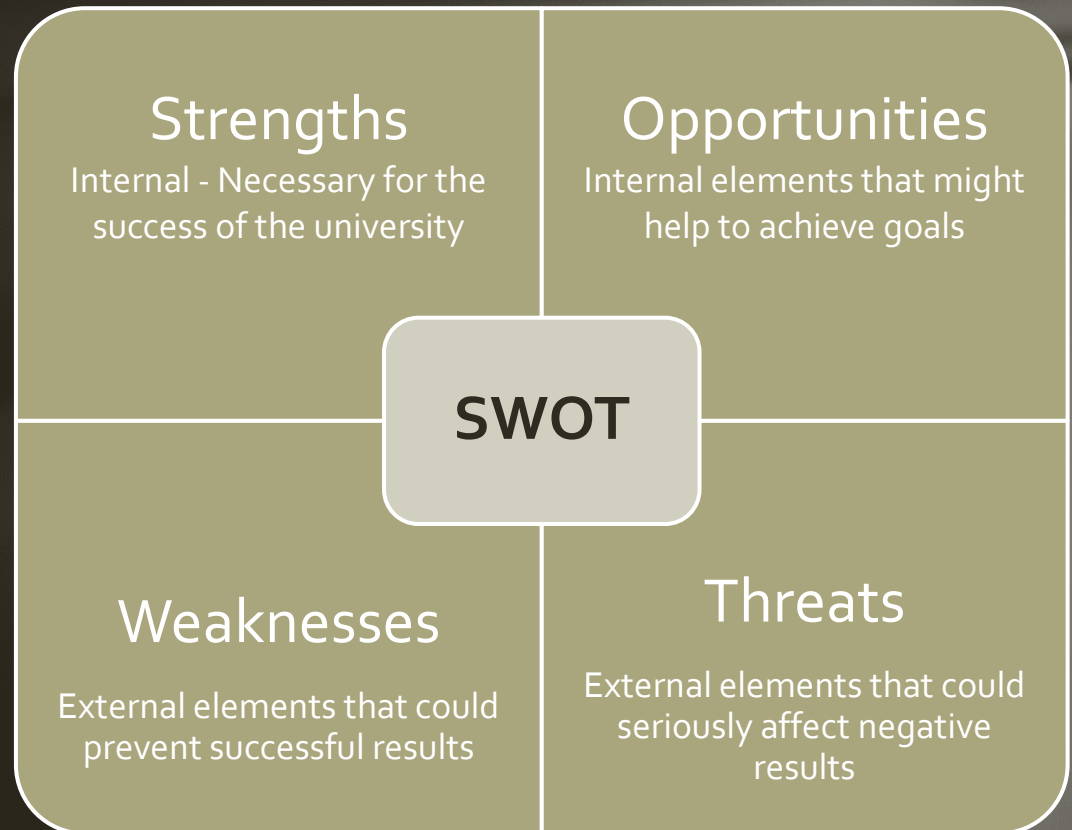
- Faculty review

- Enrollment

Other data?

- Reports
- Research articles
- Awards
- E-mails
- Notes
- Donations
- Faculty portfolios
- Legislation
- Stock reports, predictions, trends
- Blogs
- Weather reports

- We are surrounded by data, but sometimes do not recognize it.

Can you think of more?

How do we apply data to SWOT?

1. Create a list of perceived SWOT

2. Refine list; Categorize – e.g. Quality, Financial, Student outcomes . . .

3. Match data to SWOT

4. If no data exist, develop a plan to gather data

5. Re-refine SWOT only with those items that remain which have good supporting data.

Strengths
Internal - Necessary for the success of the university

Opportunities
Internal elements that might help to achieve goals

SWOT

Weaknesses
External elements that could prevent successful results

Threats
External elements that could seriously affect negative results

Examples of Strengths

- High quality academic programming at the UG and graduate level with many programs accredited and/or aligned with their professional association
- An excellent reputation .
- Multiple students scholarships and awards are available to support undergraduate and graduate students
- Very active and very supportive alumni
- The department is well connected with and very well supported by its retired faculty
- A strong focus on quality teaching with a faculty that excels in teaching students at all levels
- A large number of strong and widely respected and recognized outreach programs that demonstrate a strong commitment to the community and community service
- Excellent geographic location to provide service locally and regionally
- Dedicated and experienced support staff
- Highly qualified, experienced, and dedicated team of adjunct faculty and full- and part-time instructors
- Faculty are highly involved in their professional organizations

Examples of Weaknesses

- Lack of competitiveness of GA stipends relative to other institutions
- High student numbers makes it difficult to connect with students and retain our student centered focus
- High student numbers means a diverse student body with diverse needs and insufficient resources to address students at both ends of the ability continuum
- Lack of appreciation/recognition of faculty work
- Inadequate advising/clinical placement resources especially in the undergraduate and teacher certification programs
- Some programs need revision to keep up with changes in the field and improve course sequencing to help student progression especially as student numbers have grown
- A relatively slow responding curricular process when set against the continual need for rapid program changes driven by external accrediting agencies
- Web site out of date and not responsive to user needs

Examples of Opportunities

• We have the ability to connect and develop partnerships with the community and a diverse array of agencies (e.g., medical, fitness, schools, businesses) around faculty and program expertise—potential for new buildings with shared use consistent with initiatives developed by some of our competitors

• Many faculty have the expertise and ability to secure grant funding and undertake cutting edge scholarship

• The broad-based disciplinary bases to our programs of study provide opportunities for cross-curricular synergies within and beyond the department

• The high level of interest in department programs provides an opportunity to translate high student demand into more selective admission

• We have the opportunity to use our reputation for quality programming and our geographic location to develop new programming opportunities and new modes of delivery

• Changing demographics in the region and a growing population affords opportunities for the placement of our graduates as demand for qualified individuals grows

Examples of Threats

- Turnover in institutional leadership personnel threatens faculty and program stability
- Political pressures related to accountability, accessibility, and affordability driving programming
- Perceived 'fit' of department programs within college programming and mission
- Outside of the department many misperceptions and myths exist related to an understanding of what the department does in terms of its academic and scholarly activities
- Many competitors have developed or are developing state of the art facilities amplifying problems related to our aging facility and threaten our competitiveness to maintain cutting edge research and deliver quality programs
- External threats, changing priorities, and limited funding can potentially create internal tension over limited resources
- Competition from other schools who have more diverse programming opportunities and resources (e.g., on line courses, blended programs)
- Many faculty nearing retirement age who will need to be replaced in a market where there are limited numbers of qualified individuals

Strengths	DATA	Weaknesses	DATA
Opportunities	DATA	Threats	DATA

Conclusion

- SWOT is a tool.

- SWOT = Strengths, Weaknesses, Opportunities, Threats

- SWOT is widely used in higher education

- The process of using SWOT helps to facilitate strategic data driven decisions

- SWOT is not a substitute for assessment or continuous improvement processes

- SWOT is only a part of that process

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Quality is never an accident; it is always the result of high intention, sincere effort, intelligent direction and skillful execution; it represents the wise choice of many alternatives. Quality also marks the search for an ideal after necessity has been satisfied and mere usefulness achieved.   **—** William A. Foster