

Unit-I: Portfolio Analysis

The Quantitative Strategic Planning Matrix (QSPM)

Other than ranking strategies to achieve the prioritized list, there is only one analytical technique in the literature designed to determine the relative attractiveness of feasible alternative actions. This technique is the *Quantitative Strategic Planning Matrix (QSPM)*, which comprises Stage 3 of the strategy-formulation analytical framework. This technique objectively indicates which alternative strategies are best. The QSPM uses input from Stage 1 analyses and matching results from Stage 2 analyses to decide objectively among alternative strategies. That is, the EFE Matrix, IFE Matrix, and Competitive Profile Matrix that make up Stage 1, coupled with the SWOT Matrix, SPACE Matrix, BCG Matrix, IE Matrix, and Grand Strategy Matrix that make up Stage 2, provide the needed information for setting up the QSPM (Stage 3). The QSPM is a tool that allows strategists to evaluate alternative strategies objectively, based on previously identified external and internal critical success factors. Like other strategy-formulation analytical tools, the QSPM requires good intuitive judgment. The basic format of the QSPM is illustrated in Table-1. Note that the left column of a QSPM consists of key external and internal factors (from Stage 1), and the top row consists of feasible alternative strategies (from Stage 2). Specifically, the left column of a QSPM consists of information obtained directly from the EFE Matrix and IFE Matrix. In a column adjacent to the critical success factors, the respective weights received by each factor in the EFE Matrix and the IFE Matrix are recorded.

The top row of a QSPM consists of alternative strategies derived from the SWOT Matrix, SPACE Matrix, BCG Matrix, IE Matrix, and Grand Strategy Matrix. These matching tools usually generate similar feasible alternatives. However, not every strategy suggested by the matching techniques has to be evaluated in a QSPM. Strategists should use good intuitive judgment in selecting strategies to include in a QSPM.

Conceptually, the QSPM determines the relative attractiveness of various strategies based on the extent to which key external and internal critical success factors are capitalized upon or improved. The relative attractiveness of each strategy within a set of alternatives is computed by determining the cumulative impact of each external and internal critical success factor. Any number of sets of alternative strategies can be included in the QSPM, and any number of strategies can make up a given set, but only strategies within a given set are evaluated relative to each other. For example, one set of strategies may include diversification, whereas another set may include issuing stock and selling a division to raise needed capital. These two sets of strategies are totally different, and the QSPM evaluates strategies only within sets. Note in Table-1 that three strategies are included, and they make up just one set.

Table-1: The Quantitative Strategic Planning Matrix—QSPM				
Key Factors	Weight	Strategic Alternatives		
		Strategy 1	Strategy 2	Strategy 3
<i>Key External Factors</i>				
Economy				
Political/Legal/Governmental				
Social/Cultural/Demographic/Environmental				
Technological				
Competitive				
<i>Key Internal Factors</i>				
Management				
Marketing				
Finance/Accounting				
Production/Operations				
Research and Development				
Management Information Systems				

Table-1: QSPM

A QSPM for a retail computer store is provided in Table-2. This example illustrates all the components of the QSPM: Strategic Alternatives, Key Factors, Weights, Attractiveness Scores (AS), Total Attractiveness Scores (TAS), and the Sum Total Attractiveness Score. The three new terms just introduced—(1) Attractiveness Scores, (2) Total Attractiveness Scores, and (3) the Sum Total Attractiveness Score—are defined and explained as the six steps required to develop a QSPM are discussed:

Step-1: Make a list of the firm's key external opportunities/threats and internal strengths/weaknesses in the left column of the QSPM. This information should be taken directly from the EFE Matrix and IFE Matrix. A minimum of 10 external key success factors and 10 internal key success factors should be included in the QSPM.

Step-2: Assign weights to each key external and internal factor. These weights are identical to those in the EFE Matrix and the IFE Matrix. The weights are presented in a straight column just to the right of the external and internal critical success factors.

Step-3: Examine the Stage 2 (matching) matrices, and identify alternative strategies that the organization should consider implementing. Record these strategies in the top row of the QSPM. Group the strategies into mutually exclusive sets if possible.

Step 4 Determine the Attractiveness Scores (AS) defined as numerical values that indicate the relative attractiveness of each strategy in a given set of alternatives.

Attractiveness Scores (AS) are determined by examining each key external or internal factor, one at a time, and asking the question "Does this factor affect the choice of strategies being made?" If the answer to this question is yes, then the strategies should be compared relative to that key factor. Specifically, Attractiveness Scores should be assigned to each strategy to indicate the relative attractiveness of one strategy over others, considering the particular factor. The range for Attractiveness Scores is 1 = not attractive, 2 = somewhat attractive, 3 = reasonably attractive, and 4 = highly attractive. By attractive, we mean the extent that one strategy, compared to others, enables the firm to either capitalize on the strength, improve on the weakness, exploit the opportunity, or avoid the threat. Work row by row in developing a QSPM. If the answer to the previous question is *no*, indicating that the respective key factor has no effect upon the specific choice being made, then do not assign Attractiveness Scores to the strategies in that set. Use a dash to indicate that the key factor does not affect the choice being made.

Note: If you assign an AS score to one strategy, then assign AS score(s) to the other. In other words, if one strategy receives a dash, then all others must receive a dash in a given row.

Step 5 Compute the Total Attractiveness Scores. Total Attractiveness Scores (TAS) are defined as the product of multiplying the weights (Step 2) by the Attractiveness Scores (Step 4) in each row. The Total Attractiveness Scores indicate the relative attractiveness of each alternative strategy, considering only the impact of the adjacent external or internal critical success factor. The higher the Total Attractiveness Score, the more attractive the strategic alternative (considering only the adjacent critical success factor).

Step 6 Compute the Sum Total Attractiveness Score. Add Total Attractiveness Scores in each strategy column of the QSPM. The Sum Total Attractiveness Scores (STAS) reveal which strategy is most attractive in each set of alternatives. Higher scores indicate more attractive strategies, considering all the relevant external and internal factors that could affect the strategic decisions. The magnitude of the difference between the Sum Total Attractiveness Scores in a given set of strategic alternatives indicates the relative desirability of one strategy over another.

Table-2: A QSPM for a Retail Computer Store

Key Factors	Weight	STRATEGIC ALTERNATIVES			
		1		2	
		Buy New Land and Build New Larger Store		Fully Renovate Existing Store	
		AS	IAS	AS	IAS
Opportunities					
1. Population of city growing 10%	0.10	4	0.40	2	0.20
2. Rival computer store opening 1 mile away	0.10	2	0.20	4	0.40
3. Vehicle traffic passing store up 12%	0.08	1	0.08	4	0.32
4. Vendors average six new products/year	0.05	—	—	—	—
5. Senior citizen use of computers up 8%	0.05	—	—	—	—
6. Small business growth in area up 10%	0.10	—	—	—	—
7. Desire for Web sites up 18% by Realtors	0.06	—	—	—	—
8. Desire for Web sites up 12% by small firms	0.06	—	—	—	—
Threats					
1. Best Buy opening new store nearby in 1 year	0.15	4	0.60	3	0.45
2. Local university offers computer repair	0.08	—	—	—	—
3. New bypass for Hwy 34 in 1 year will divert traffic	0.12	4	0.48	1	0.12
4. New mall being built nearby	0.08	2	0.16	4	0.32
5. Gas prices up 14%	0.04	—	—	—	—
6. Vendors raising prices 8%	0.03	—	—	—	—
	1.00				
Strengths					
1. Inventory turnover increased from 5.8 to 6.7	0.05	—	—	—	—
2. Average customer purchase increased from \$97 to \$128	0.07	2	0.14	4	0.28
3. Employee morale is excellent	0.10	—	—	—	—
4. In-store promotions resulted in 20% increase in sales	0.05	—	—	—	—
5. Newspaper advertising expenditures increased 10%	0.02	—	—	—	—
6. Revenues from repair/service segment of store up 16%	0.15	4	0.60	3	0.45
7. In-store technical support personnel have MIS college degrees	0.05	—	—	—	—
8. Store's debt-to-total assets ratio declined to 34%	0.03	4	0.12	2	0.06
9. Revenues per employee up 19%	0.02	—	—	—	—
Weaknesses					
1. Revenues from software segment of store down 12%	0.10	—	—	—	—
2. Location of store negatively impacted by new Hwy 34	0.15	4	0.60	1	0.15
3. Carpet and paint in store somewhat in disrepair	0.02	1	0.02	4	0.08
4. Bathroom in store needs refurbishing	0.02	1	0.02	4	0.08
5. Revenues from businesses down 8%	0.04	3	0.12	4	0.16
6. Store has no Web site	0.05	—	—	—	—
7. Supplier on-time delivery increased to 2.4 days	0.03	—	—	—	—
8. Often customers have to wait to check out	0.05	2	0.10	4	0.20
Total	1.00		4.36		3.27

Positive Features and Limitations of the QSPM

A positive feature of the QSPM is that sets of strategies can be examined sequentially or simultaneously. For example, corporate-level strategies could be evaluated first, followed by division-level strategies, and then function-level strategies. There is no limit to the number of strategies that can be evaluated or the number of sets of strategies that can be examined at once using the QSPM. Another positive feature of the QSPM is that it requires strategists to integrate pertinent external and internal factors into the decision process. Developing a QSPM makes it less likely that key factors will be overlooked or weighted inappropriately. A QSPM draws attention to important relationships that affect strategy decisions.

Although developing a QSPM requires a number of subjective decisions, making small decisions along the way enhances the probability that the final strategic decisions will be best for the organization. A QSPM can be adapted for use by small and large for-profit and nonprofit organizations so can be applied to virtually any type of organization. A QSPM can especially enhance strategic choice in multinational firms because many key factors and strategies can be considered at once. It also has been applied successfully by a number of small businesses. The QSPM is not without some limitations. First, it always requires intuitive judgments and educated assumptions. The ratings and attractiveness scores require judgmental decisions, even though they should be based on objective information. Discussion among strategists, managers, and employees throughout the strategy-formulation process, including development of a QSPM, is constructive and improves strategic decisions. Constructive discussion during strategy analysis and choice may arise because of genuine differences of interpretation of information and varying opinions. Another limitation of the QSPM is that it can be only as good as the prerequisite information and matching analyses upon which it is based.