

## **NEW PRODUCT PLANNING – OVERVIEW, SCREENING/EVALUATION, & CUSTOMER RESEARCH**

- I. Overview of the New Product Planning Process (NPPP)
  - A. I first present the steps in the NPPP as discussed in the text under B immediately below. I then present the steps as I see the NPPP under C. I then explain the reasoning for the differences between my steps and the ones in the text under D.
  - B. The NPPP steps in the **text**
    - 1) Idea generation
    - 2) Idea screening and evaluation
    - 3) Concept development and testing
    - 4) Marketing strategy development
    - 5) Business analysis
    - 6) Product development
    - 7) Test marketing
    - 8) Commercialization
  - C. The NPPP steps in these notes
    - 1) Idea Generation
    - 2) Screening and concept testing
    - 3) Product and marketing strategy development with business analysis starting part of the way through this step and then conducted repeatedly during the rest of this step.

Product use testing research also is usually conducted during this step.
    - 4) Test marketing (although this step is skipped in some situations)
    - 5) Commercialization
  - D. Description of the differences between the NPPP in the text and the process in these notes along with the reasoning for the differences
    - 1) Combining **screening** and **concept testing** into a single step in the notes compared to separating these steps in the text.

As I indicate in more detail on page 7 under 2 of these notes, screening often should be done in **multiple** stages. Although an **initial** screen usually is done before concept testing because it would be too expensive to concept test all of the initial ideas generated when a large number of ideas are generated, a **later** screen usually would incorporate results of concept testing. Since some screening is done before concept testing but other screening is done after concept testing and uses the results of concept testing, it makes sense to combine these two steps into a single step.

- 2) Combining marketing strategy development and product development into a single stage in these notes compared to treating them as separate stages in the text.

The reasons for combining these two steps are discussed below.

- (a) The text indicates that marketing strategy development should be conducted before product development. This usually is unrealistic for the following reasons. First, it is difficult to determine the positioning and the targeting aspects of market strategy development without knowing the product attributes and features that can **realistically** be produced. This issue of what attributes can realistically be produced cannot be decided into well into the technical aspects of product development. Using the electric car as an example, it would be hard to know how to position this vehicle and who to target it to without knowing its driving range between charges and this driving range would not be known until well into the product development process.

Second, targeting and positioning cannot really be determined without some reasonably accurate understanding of **variable production costs** and these costs cannot be determined until well into the product development process. These costs are relevant to positioning and targeting because they set a **pricing floor** and this floor has an impact on the target. The higher the floor, the greater the need to focus on a target that places more importance on quality than on price.

You may conclude from the discussion of the above two reasons that marketing strategy development should be done **after** product development rather than at the same time as product development. However, this would be an incorrect conclusion for a couple of reasons. First, product development needs to focus on **fulfilling customer benefits** rather than just developing products that involve new technology. Looking at positioning and targeting options during product development will keep product development on track in focusing on trying to satisfy market segments. Second, developing a marketing strategy at the same time as developing a product will **save time**. Time will be saved because conducting any two tasks **concurrently** or at the same time, rather than sequentially, will save time, at least when different people are working on the different tasks. Saving time in new product planning is very important as it allows the new product to get to market more quickly, possibly before competition.

- 3) Putting the **business analysis** step **later** in the process than the text indicates. More specifically, the business analysis step usually is started **during** the product and marketing strategy development process, but only after a prototype is developed. Thus, business analysis should not be viewed as a separate step. Rather, it should be viewed as part of the product and marketing strategy development stage.

The **financial** projections that the text indicates should be done during business analysis usually cannot realistically be done until a **prototype** is developed. A prototype is developed part of the way through the product development process. (A prototype, or working model, usually is an actual physical product that customers can use and experience but it is not mass-produced.)

Let me explain why it usually is unrealistic to project costs, sales, and profits prior to prototype development. **Production costs** cannot usually be estimated until a prototype is developed as you need to know exactly what materials are used in producing the product, along with the quantity of each material in the product to estimate the materials cost of production. These material costs cannot be estimated until a **prototype** exists. You also need to know the **production process** to estimate the equipment and **labor costs** of production and the production process is not known until a prototype exists.

It also is difficult to get a reasonable estimate of **sales** until **customer product use testing** is conducted and this testing cannot be conducted without a prototype. Customer product use testing is discussed briefly below and both it and concept testing are discussed in more detail, starting on page 26. These results from customer product use testing, which are much more accurate than the results from concept testing as discussed starting on page 27, are needed to forecast sales prior to possible test marketing.

- 4) Inclusion of **customer product use testing** in these notes as part of marketing strategy/product development and business analysis. The text discusses this type of research but does not list it as part of the process. I think it is important enough to list it as part of the process.

(a) **Brief** description of customer product use testing

This research is described in more detail starting on page 28 of these notes and I urge you to study this material at the same time that you are studying the below.

A sample of potential customers is given a **prototype** of the product to use. After a sufficient period of use experience, they are questioned about their positive and negative experiences with the prototype and usually asked about their purchase intentions and how much value they think the tested prototype has compared to competition.

- (b) When during the NPPP is **customer product use testing** conducted?

It would be conducted during marketing strategy and product development. As discussed immediately above under a), a **prototype** needs to be developed prior to this customer product use testing and a prototype is not developed until the marketing strategy and product development stage.

In other words, customer product use testing is combined into an existing stage of the new product planning/development process, namely marketing strategy/product development and business analysis, rather than added as a separate stage of this process.

Once conducted, the purchase intention results from customer product use testing can and should be used to forecast sales. These sales forecasts can be combined with cost estimates as part of making the financial projections involved in **business analysis**.

- 5) The process described previously in these notes indicates that **test marketing** should be **skipped** in some instances while the text's process does not clearly indicate that test marketing may be skipped.

- (a) Brief description of test marketing

Although test marketing is discussed in a lot more detail later in these notes, starting on page 32, I will provide a brief description here of standard test marketing.

Standard test marketing involves actually producing, distributing and marketing a new product on a **small scale** with the objective of conducting research to determine a) the appropriate marketing mix to use with the test marketed product, and/or b) whether to terminate the new product without proceeding to larger scale commercialization or rollout.

- (b) Discussion of the basic reason for skipping standard test marketing in some instances

As discussed in more detail under c below, standard test marketing a) can be quite expensive, and b) is quite time consuming. It also can give very valuable information about the new product and its marketing to competitors since it is done **publicly** (unlike customer product use testing, which is done privately). Given these **three** disadvantages, standard test marketing should be skipped unless there is a lot of uncertainty about the price to charge for the new product and about the amount and type of advertising to do. The main potential value of standard test marketing is that it can be used to select an appropriate price and advertising plan.

I develop this reasoning in more detail below under c, focusing on the three disadvantages of standard test marketing.

- (c) Explanation of each of the three disadvantages of standard test marketing.
- i Standard test marketing can be quite expensive because it really is a **small-scale launch** of the new product. This means that actual production must be done, which often costs millions of dollars, along with actually distributing the product to retailers, which often costs hundreds of thousands of dollars. However, since standard test marketing involves actual sale of the new product, it is possible, but unlikely, that the revenues may exceed the costs of the test marketing. Thus, these costs are not the **primary** reason for skipping test marketing. The more important reasons are discussed below.
  - ii Standard test marketing usually takes a number of months, which gives competition time to catch up to the new product or even get to market while the organization in question is test marketing. It takes a long time because a) many customers wait awhile to make an **initial purchase** of the new product and b) do not need to decide to repurchase the new product until the initial purchase is depleted or wears out, which can take months. It is critical to wait for later adopters to make their initial purchase and to get a good idea of the probability of repurchase for the results of standard test marketing to be useful.
  - iii Current and future competitors can learn about the marketing plan and product characteristics of the product being test marketed as standard test markets can be observed by competition. As already mentioned, a standard test market involves actually selling and promoting the new product in a few communities. Advertising is done in these communities and the product is available for purchase through actual retailers. All of this is done in **public**, and thus, can be observed by competition.

**TRANSITION POINT:** The **overview** of the new product planning process, discussed to this point, is now completed. The next part of this set of notes will focus on one very important aspect of new product planning, namely concept and product **evaluation**. This evaluation involves **screening** (done before product/marketing development) and evaluation done later during marketing strategy and product development. I will go into a lot of detail on how to do this evaluation and when to do it. Most of this focus is on an **indirect** evaluation process done in the latter stages of screening and in the early stages of marketing strategy and product development prior to the development of a prototype. This indirect evaluation process can be called the **criterion-based weighted averaging** approach.

## II. **When** do we evaluate new product concepts, prototypes, and new products?

The basic answer to this question is that evaluation is an **ongoing** process that is done throughout the entire NPPP, in contrast to the suggestion in the text that it is done only during a) idea screening and b) business analysis.

The basic reason for evaluation being ongoing is that new information involving a)

**customer reaction** to the new product, b) **competition**, c) **market trends**, and d) **technical feasibility** relevant to the success or failure of a new product is coming in on an **ongoing** basis and this new information needs to be integrated into the evaluation process. The new information could suggest either increased success or increased failure. If it suggests increased success, then additional resources might be provided to speed up the development process. On the other hand if the new information suggests failure, then development of the new product or concept might be stopped.

A more detailed discussion of when evaluation of concepts, prototypes, and new products should occur is presented below.

A. **Concept screening** should be done **prior** to development (I usually will use the term “development” rather than the more formal and longer term “product/ marketing strategy development and business analysis.”) where we are evaluating new product ideas or concepts.

- 1) Why should **concept screening/evaluation** be done prior to beginning development and business analysis?

During the first step, namely idea generation, the objective should be to identify a **large** number of ideas because it is inexpensive to come up with ideas and because it only takes one really good idea to be successful. Given that it only takes one good idea, you do not want to overlook anything.

At the same time, product and marketing development can be very expensive and very time consuming. It can cost millions of dollars to do the **technical** research and development needed with some new products, and it also can take years of development time. Given these high costs and long time, only one, or possibly a few of the new product concepts generated should enter the product and marketing development step at a given point in time.

Putting the ideas of the prior two paragraphs together, if a **large** number of ideas are generated and only a **small** number of concepts should enter development, then there is a need to **screen** the ideas generated to determine which **few** concepts are the most promising. The most promising concept or possibly the top few concepts will then begin development.

- 2) Should idea/new concept screening be done in **one-stage** or should it be done in **multiple** stages?

(a) General answer to the question

It depends on the number of ideas that need to be screened. If a large number of ideas need to be screened, then **multi-stage** screening will tend to be both more effective and efficient than a **single-stage** screening. A more detailed explanation is provided under c starting on the next page and you need to be aware of this more detailed explanation.

However, if only a **small** number of ideas are generated, then **single-stage** screening/evaluation is appropriate. Here, it would be inappropriate to do the **earlier** parts of multi-stage screening, which involve **quicker** screens described below under b. The main potential advantage of these quick early screens is efficiency. However, efficiency is unimportant when only a few new product concepts are being evaluated. Since these early quick screens are not that **effective**, they should not be conducted unless **efficiency** is **important**. Instead, single-stage screening, similar to the criterion-based weighted averaging indirect evaluation process described in great detail later in these notes, should be used even with initial screening.

To understand why multi-stage screening is more effective and efficient than single-stage screening when a large number of ideas or concepts have been generated, we need to understand the concept of multi-stage screening, and this concept is described below.

(b) Description of **multi-stage** screening

The basic concept is that **earlier** stages tend to involve **quick and dirty evaluations** while **later** stages tend to involve **more carefully researched and more formal** evaluation processes. This idea is developed below.

The first screening stage could involve having each person on a screening team identify at least a few concepts that they would screen out, without having them do any research or formal evaluation. Unless one or more other people on the screening team strongly object, each of the suggested ideas for elimination is then eliminated from further evaluation.

The **second** stage of multi-stage screening would involve a somewhat more formal process but still would be rather quick. A **few simple criteria** could be used here to evaluate each remaining new product concept, such as fit with company objectives and resources, and extent of existing competition. By this time, only a relatively small number of concepts hopefully remain to be evaluated in the next screening step.

Because these earlier quick and dirty screens are not particularly accurate, it is possible that a bad mistake could be made, which involves quickly screening out new product concepts that would be successful. To guard against this mistake, it is important in these earlier screens to only screen out concepts that appear to be almost certain losers.

The final stage of multi-stage screening should involve a comprehensive evaluation using a larger number of criteria and should involve some research, including **concept testing**. Concept testing involves **describing** remaining new product concepts to a sample of potential customers and getting their reaction through some measure of **purchase intentions**, along with asking

questions about benefits, advantages, disadvantages, uses, reasonable prices etc. The **weighted averaging scoring system** that is described in detail starting on page 12 is what I recommend using in the final stage of multi-stage screening or as the only screen in single-stage screening when only a small number of ideas are generated.

- (c) Explanation of why multi-stage screening is both more **efficient** and **effective** than one-stage screening when a large number of ideas need to be eliminated during screening

There would be a real dilemma here with **one-stage** screening in terms of whether the only stage should be a quick and dirty screening process **or** whether it should be a time-consuming and more formal screening process, such as the weighted averaging scoring system that is discussed in detail starting on page 12. The problem with the former quick and dirty screening is that it is not very accurate or **effective** so it may not be able to identify the best ideas. The problem with the latter weighted averaging scoring system is that it will be **very expensive** when a **large number** of ideas need to be evaluated and thus is rather **INEFFICIENT**.

On the other hand, the **multi-stage** screening is more **flexible** because it does not rely on one screening approach. The worst ideas can be quickly and **efficiently** eliminated through a quick and dirty process, which leaves a smaller number of ideas to be more **effectively** evaluated through a more formal, accurate, but also more time consuming process, such as the weighted averaging scoring system.

B. Concept/prototype evaluation also is done during development

As a reminder, the basic point being made under “II” is that concept/prototype/new product evaluation should be **ongoing**. In explaining why the evaluation should be ongoing, I am discussing various times that this evaluation should take place. The prior discussion under “A” focused on evaluation **prior** to development. Here, the focus is on evaluation **during** the marketing strategy and product development stage of the new product planning process.

- 1) Reasons for evaluating ideas and/or prototypes during product and marketing development
  - (a) Development can take a number of **years** to complete and you usually commit resources only one year **at a time**. After each year, the concept or prototype may be reevaluated to decide whether to a) invest more, b) continue at the current funding level, or c) discontinue funding. Here, we are using **scheduled checkpoints**, which probably are scheduled every six months, to reconsider development funding for a new product concept that has entered this development stage.

- (b) Partly because development can take a long time, we continue to learn more about **competition, market conditions, customer reaction, and/or costs** throughout development. Whenever we learn something that is significantly **different** than what was expected **previously**, we should reevaluate whether to continue development of a new product concept that began development. This evaluation often will occur between times for **scheduled checkpoints** described above under “a.” Since the only concepts that enter development were evaluated very **positively** prior to development, it is more likely that any learning which **changes** evaluation is more likely to **lower** the evaluation than to **increase** it.

Some of the things that often are learned are identified below, each of which is a **negative** factor. Not all of the below developments would automatically trigger a decision to terminate development. The two most likely to trigger a termination decision are the first.

- i We find out during development that a competitor has recently acquired a patent that effectively blocks our technical development. Termination should be seriously considered with this negative but potentially very important information, unless there is some way of working around the patent.
- ii A strong competitor launches a similar product well in advance of development ending for the new product in question. Unless our product being developed is thought to be significantly better than this competitor’s product, termination should be very seriously considered.
- iii After a prototype is developed, we may find that the manufacturing costs are going to be **considerably** higher than previously thought. There is more uncertainty here about what to do. Perhaps more technical development to modify the product or the production process could bring these costs down. A lot also depends on whether the positioning is on quality or price. This issue is less important when positioning on quality.
- iv Again after a prototype is developed, we may find during customer product use testing that customers are very unenthusiastic about the product. Unless, the product can be redesigned to improve customer satisfaction, the product probably should be terminated.
- v Greater-than-expected difficulty is experienced in developing the needed technology. This is really a tough situation. The key issue is whether spending more time or money on trying to develop the technology will be successful. This issue was discussed at the end of the first set of notes on the second exam pertaining to technical feasibility.

### III. Overview of two basic evaluation approaches

One of the approaches **directly** evaluates profitability and **risk** and the second approach **indirectly** evaluates profitability **and** risk. These two general approaches are briefly discussed below, followed by a detailed discussion of the **indirect** approach, which also can be called the weighted averaging scoring system approach.

A. **Directly** evaluate profitability (as described in business analysis in your text)

Steps in estimating profitability

- 1) Quantitatively estimate sales **volume** in terms of the number of units forecasted to be sold.

Two basic components are estimated here and then combined by **multiplying** them together. The **first** component involves estimating **sales** in **units** of the **product category**. The **second** component involves estimating **market share** (which is always expressed as a **percentage**) in units of the **brand** within the product category. These two estimates then are multiplied together.

Both sales estimates should be forecast by **combining** a **better** case estimate with a **worse** case estimate. This is because there realistically is a good deal of **uncertainty** involved in forecasting sales for a new product before it even is launched. Combining multiple estimates under better and worse cases forces the forecaster to address the uncertainty that realistically exists. Market share is usually the harder of these two components to estimate because so much depends on completion, both established and emerging. The unexpected entrance of a competitor before we enter the market or shortly after we enter it can have a very large impact on market share.

- 2) Multiply the estimated sales volume forecast discussed under 1) above by **contribution margin (unit price – unit variable costs)** to arrive at an estimate of **net sales revenue**.
- 3) Subtract **fixed** costs from net sales revenue to arrive at an estimate of profits.

The above assumes that you understand the difference between fixed and variable costs as learned in accounting, which is a prerequisite for this course.

B. **Indirectly** evaluate profitability & risk

- 1) **General** description of indirect evaluation approach (A more specific description starts in a couple of pages under “IV.”)
  - (a) This indirect approach starts by choosing **criteria** that are indicators /predictors of profitability (or of the probability of success of a new product) but are not direct quantitative measures of sales and costs.
  - (b) It then **rates** each new product concept or idea on **each criterion**. This rating can be done with numbers or without numbers. The weighted averaging

indirect evaluation approach I will soon describe uses numbers and arrives at a single overall score for each new product concept being evaluated. It is called a **weighted averaging** approach because quantitative **importance** weights are used with each evaluative criterion.

- C. When and why do we use the indirect evaluation approach rather than the **direct** approach?

The general answer is that indirect evaluation usually is used prior to prototype development. This is because direct evaluation usually cannot realistically be done until a prototype is developed. The reasoning for this conclusion actually was addressed earlier in these notes, starting on page 3 under 3 when discussing why business analysis usually does not begin until a prototype is developed. To summarize, it usually is not possible to generate accurate sales forecasts without first doing customer product use testing, and this testing cannot be done until a prototype is developed. It also is difficult to begin to estimate production costs until a prototype is developed.

However, some exceptions exist to the conclusion in the prior paragraph. In other words, **direct** estimates of costs and/or sales **sometimes** can realistically be used prior to development of a prototype. These situations are discussed below, realizing that a **combination** of the below situations is needed because **direct** evaluation approaches require accurate estimates for **both** sales and costs.

- 1) If a new product concept is similar to a current product of the same organization, it may use established production equipment and materials. In this situation **production** costs can be estimated accurately prior to development.
- 2) Some new product concepts involve little if any **technical** development. In this case, it is not difficult to estimate R & D **costs** since they will be very low.
- 3) Particularly in **business-to-business** marketing, new product concepts often are developed jointly by customers and suppliers. In this joint development process, buyers often make a **commitment** to purchasing the new product from the supplier. Thus, accurate **sales** estimates can be generated, even prior to development.

- IV. A **simple** and superficial description of the seven steps in the **weighted averaging indirect** evaluation approach (This simple description will be followed by a very detailed discussion of each of these seven steps.) I think you need this superficial description so that you can see the forest through the trees, so to speak.

- A. Select **evaluation criteria**. (a **decision** step)
- B. Establish **quantitative importance weights** for each criterion (a **decision** step). A key question here is whether only one importance weight is used for a criterion regardless

of the specific concept evaluated. This issue is discussed in the more detailed discussion of this step, which follows shortly.

- C. Assign a **quantitative** rating to each new product concept being screened or evaluated on each evaluation criterion. (a **decision** step)
- D. For each new product concept, **multiply** the **importance weight** of an evaluation criterion (from **step 2 or B**) by the **rating** of the new product concept on each criterion (from **step 3 or C**). Do this with each criterion and also do it separately for each new product concept. (a **calculation** step)
- E. **Sum** the calculations from step 4 or D above **separately** for **each** new product concept to obtain an **overall** numeric score for each new product concept (a **calculation** step)
- F. Establish a **minimum** numeric decision standard threshold. (a **decision** step)

New product concepts that get an **overall numeric score** below this threshold will be **terminated**.

- G. Do a reevaluation, rather than relying strictly on the overall numeric scores calculated in step “5” or step “E” (a **decision** step)

This reevaluation first considers whether any new product concepts that exceed the threshold score have **fatal flaws** that should result in their termination even though the overall score is acceptable.

This reevaluation also should consider whether **importance weights** should be **changed** for **some** or all of the new product concepts being evaluated.

Each of the **five decision** steps involved with the **indirect evaluation** approach is described in a lot more detail below under “V.” A numeric example is given to help your understanding of the two calculational steps, although the mathematics are very straightforward.

- V. Detailed discussion of each of the seven steps in the seven-step indirect evaluation approach

- A. Select **evaluation criteria**: (the **first** step in the 7-step weighted averaging indirect evaluation process)

These criteria are factors used to evaluate the new product concepts to determine whether to move each new product concept forward or whether to terminate it.

As an example, the degree to which a new product concept uses already existing resources of the organization could be one evaluation criterion. If a new product concept requires a lot of resources that the organization does not have, then the concept would have a **negative** rating on this criterion.

1) Characteristics that good **evaluation criteria** should have

The point is that the two below characteristics are used to select the evaluation criteria. In addition, the two below characteristics are used to determine the **importance weights** of the criteria selected for use. The importance weights are discussed in more detail under VB starting on page 16. Potential evaluation criteria that meet each of the two below characteristics are the best criteria to use.

- (a) A good evaluation criterion should be a good **predictor** of the **probable success or failure** of a new product concept being evaluated (the **first characteristic** used to select evaluative criteria).

A criterion is a good predictor if a low rating means that the concept is likely to fail while a high rating significantly increases the probability of success.

Even with a criterion that is a good predictor of probable success/failure of a new product concept, a **high** rating of a new product concept on **one criterion** does not mean that the concept will be successful. This is because a concept usually needs to be rated **highly** on a **large** number of relevant criteria to be successful or profitable. For example, even if an organization currently has all the strengths and resources needed to be successful with a new product concept being evaluated and if very few competitors have the resources and strengths needed for success, the new product concept still could fail for a number of reasons. For example, sales potential of the product category could be too low to breakeven or customers' reaction to a concept in concept testing was unenthusiastic or if the possible target market is highly satisfied with one or more brands of existing competitors. (Note that there are a number of examples of evaluative criterion that meet this first condition in this paragraph. Additional examples are identified shortly under 2 starting toward the top of the next page.

- (b) A good evaluation criterion is one with which an organization can **accurately rate** new product concepts (NPC) on the criterion **prior to prototype** development. (the **second characteristic** used to select evaluative criteria)

Remember that we use the **indirect** evaluation approach **before** we can generate **accurate** estimates of sales and costs. Obviously, it does no good to use an **indirect** approach if criteria are selected on which we cannot **accurately** rate a new product concept on a criterion, even if the criterion is related to success or failure. The relevant time frame here is prior to **prototype** development because this is when **indirect** evaluation is used (and **indirect** evaluation is the focus of this discussion).

For example, the **probable market share** of a new product concept is a criterion that is a good predictor of success/failure because a **low** market share is a good predictor of **failure**. However, probable market share is rarely used as an evaluation criterion with the indirect approach because it is too difficult

to **accurately predict** the probable market share of a new product concept **prior to development** of a prototype. It is difficult to accurately predict market share at this point both because the **competitive** environment, which has a direct impact on market share, is uncertain and unstable at this time and because **concept testing**, which usually is not very accurate, is the **only** type of **customer research** that can be done before prototype development.

- 2) Identification of some **criteria** that could be used to help you understand this indirect evaluation process.

Each criterion below does at least a reasonable job of meeting each of the two above characteristics.

- (a) Degree to which a relevant market segment or segments is (are) dissatisfied with existing competition (Sound familiar. It should as this was emphasized over and over in discussing potentially profitable positioning and repositioning options prior to the second exam.)
- (b) Amount of strong and aggressive existing competition with market segment and in the more general product category
- (c) Extent that demand for the product category is likely to increase in the next five to ten years
- (d) Extent that the organization has the skills and resources needed to compete compared to the extent that potential competitors have these strengths
- (e) Probability of getting an effective patent
- (f) Degree of **technical feasibility** (This concept also should sound familiar as it was recommended for use in evaluating potentially profitable **positioning** options in the first set of notes for the second exam.)
- (g) Response to **concept testing**
- (h) Ability to undercut the variable costs of competition (This criterion obviously is very relevant if the concept will tend to be positioned as the **low price** alternative but it is not relevant if the concept will be positioned more on quality.)
- (i) Probability of obtaining needed levels of **supplier** support
- (j) Probability of obtaining needed levels of **distributor** support
- (k) Degree of potential for brand loyalty
- (l) Probability of the concept being the **first** entrant in the product category

B. Establish quantitative **importance weights** for each criterion. (The **second** step in the 7-step weighted averaging indirect evaluation process)

- 1) Why do we need to consider the degree of importance of each evaluation criterion used?

In reality, some evaluation criteria used will have more **importance** than other criteria, largely because some criteria are better predictors of profitability than other criteria. For example, at least with consumer convenience products that need a lot of retailers to purchase and resell the new product, the criterion of being able to obtain needed distributor support tends to be more important than the criterion dealing with the potential for significant growth in sales of the product category over the next 5-10 years. A new product will get minimal market share if it cannot get very many retailers to carry the brand once it is launched regardless of how much growth occurs in the product category. In general, factors that influence **market share** have a bigger impact on success or failure than factors that influence product category potential.

- 2) Why are **quantitative** importance weights needed to indicate the degree of importance of each evaluation criterion?

The indirect evaluation approach is going to generate an overall **numeric score** for each new product concept being evaluated and **quantitative** importance weights are needed to generate this numeric score. More specifically, as we will see more clearly in the 4<sup>th</sup> step of the **indirect** evaluation process, we will **multiply** the **quantitative importance weight** of an evaluation criterion by the numeric **rating** of a new product concept on an evaluation criterion. Obviously, **numbers** are needed for this multiplication to occur.

- 3) But why do we need to generate a **numeric score** for each new product concept?

Because this weighted averaging approach would tend to be used in the very **last** stage of a multi-stage screening process, the remaining concepts to be evaluated will all tend to be relatively promising since all the bad concepts have already been screened out. Thus, a **sensitive** evaluation system that can identify **smaller** differences between concepts is needed and a **quantitative** scoring system, as discussed in more detail below, can identify these **smaller** differences.

A **numeric** scoring system can identify **smaller** differences in the comparative evaluations of these remaining competitive concepts than a **letter grading** system, for example. More specifically, number scores generate **differences** between new product concepts being evaluated which would have the same **letter grade**. For example, say that the organization first assigned **letter** grades to new product concepts and it had five new product concepts that had an “A” letter grade. Here the letter grade evaluation process would not differentiate these five concepts enough to determine which one or two concepts should enter development. However, if each of these concepts had a **numeric** score, then it is

likely that none of them would have exactly the same numeric score, which would allow the organization to develop the one or two concepts with the highest numeric scores.

- 4) What **numeric system** should be used to assign **quantitative importance weights** to each criterion?

The answer is the same as that used with the WAD approach discussed in the positioning notes for the second exam. More specifically it is recommended having each weight be a **decimal** to the nearest **hundredth**, with the **sum** of all the weights being **equal to 1.0**. For example, one evaluation criterion might have an importance weight of .25.

- 5) How should the importance weights be determined?

The two characteristics of good evaluation criteria discussed under VA1 should be used. (As a reminder, the first of these two characteristics is that a good evaluation criterion should be a good predictor of the **probable success/failure** of a new product concept being evaluated and the second characteristic is that a good evaluation criterion is one with which an organization can **accurately rate** new product concepts on each criteria **prior to prototype** development.) Basically, higher weights should be assigned to criteria that better meet both of these characteristics.

- 6) Should the **importance weights** remain the **same** for each evaluative criterion **across** new product concepts or should an importance weight for one or more criteria be different when evaluating one new product concept than when evaluating another new product concept?

It would be a lot **easier** if the importance weights could stay the **same** for **all** new product concepts, even when different concepts are in different product categories.

Unfortunately, the weights of **some** evaluative criteria should change from **one product category** to another product category, and a weight of a some criteria might even be different from one new product concept to another within the same product category. To understand why the importance weight of a criterion be different when evaluating one new product concept than when evaluating a second new product concept on the same criterion, we need to use the **first** of the **two characteristics** that are used to determine importance weights. This **first** characteristic is the ability of a criterion to be a good predictor of the likelihood of **success or failure** of a new product concept. In reality, some criteria are much **better** predictors of this success/failure with **some product categories** or with **some positioning strategies**. Some examples are discussed below.

- Number and size of market segments within the relevant product category that are less than moderately satisfied with all **established** competitive brands.

The only problem with this criterion is that it is not as strong a predictor of success/failure if the **competitive** environment can **quickly** change. Certainly competitive environments can change faster in some product categories than in other ones, particularly product categories that either are not yet on the market or else are in the **introductory** stage of the product life cycle.

➤ Potential to **undercut costs** of **established competitors**

This criterion is a better predictor of success/failure if a new product concept is being positioned on **price** than if it is being positioned on **quality**. Obviously, this potential is critical to successful positioning on price. Without the potential to undercut competitive costs, it is very difficult to price below the price of other competitors who also are trying to position on price. For example, both Wal-Mart and Southwest Airlines, who are positioning partly on low prices, realize the importance of carefully controlling costs, particularly **variable** costs, as these costs have a significant impact on the ability to lower price.

➤ Probability of obtaining needed levels of **supplier** support

**Supplier** support may not be needed at all with new product concepts in some product categories such as those involving **services**. This criterion would be largely irrelevant in this situation. However, with other product categories, scarce materials may be needed to produce a produce with the specifications needed to be successful and the lack of supplier support of a scarce material would be a big problem.

➤ Probability of obtaining needed levels of **distributor** support

**Distributor** support may not be needed in some new product categories in **business** markets dominated by a few large customers. Here, even smaller startups probably could afford their own salesforce and thus bypass distributors. This criterion should have a lower weight in these situations. However, this criterion is a very good predictor of failure with consumer convenience goods that need a lot of retailers to purchase and resell the new product.

➤ Probability of being able to obtain a **sustainable technological** advantage on a quality-related determinant benefit important to a dissatisfied market segment

This criterion would have a lower weight in product categories that would not involve developing new technology. In fact, this criterion probably would not even be used in these situations. It also is unimportant when positioning on price. However, it is extremely important when positioning on quality when having a quality advantage depends on newer technology.

➤ Degree to which **barriers to competitive entry** exist

This criterion is a better predictor of success with product categories in the introductory or growth stage of the product life cycle than those product categories in the maturity stage of the product life cycle. New competitors rarely enter a product category once the maturity stage begins so barriers to the entry of **new** competitors are irrelevant in this situation. However, this is a very important criterion for new products that are probably are entering the market in the introductory stage of the life cycle for the product category.

7) Beginning of an example with numbers to demonstrate the **weighted averaging indirect** evaluation process being described.

To keep things simple, only four **evaluative criteria** are used in this example, although a lot more than four criteria usually are used in the real world. Note that I previously listed 12 criteria on page 15-16. The criteria used are a) the degree of barriers to competitive entry, b) the size of the benefit segment that would be targeted with the new product concept, c) the degree to which this segment is dissatisfied with competitive brands currently on the market, and d) the degree of **compatibility** between the strengths and resources **needed** for the new product concept to be successful and the strengths and resources the **organization has**. Without getting into an explanation of how the importance weights are selected, assume that the below importance weights are used with each of these four criteria. Note that the four importance weights **sum to 1.0** as discussed under 4) starting on page 17. Also, note that the weights are expressed in **hundredths**.

Entry barriers criterion	.15
Segment size criterion	.10
Segment dissatisfaction criterion	.40
Resource compatibility criterion	.35

C. Assign a quantitative **rating** to each new product concept on each **evaluation criterion**. (The **third** step in the 7-step indirect evaluation weighted averaging process)

1) Why do **quantitative** ratings need to be used?

The answer is the same as that previously discussed a few pages ago on why numeric scores should be generated for each new product concept (see B2 and B3 starting on page 16). Basically, we need to assign numeric ratings to each new product concept on each criterion to arrive at a **single** overall **numeric** score for each new product concept being evaluated and this single overall numeric score provides a **sensitive** measure that can **differentiate** between new product concepts that are rather **similar** in terms of whether they should enter development.

- 2) What numeric rating system should be used for the ratings of new product concepts on each criterion?

Different systems are used. I recommend using a 1 to 5 rating, but to the **nearest tenth**. Thus, one new product concept might get a rating of 4.6 on an evaluation criterion while another concept might get a rating of 4.3 on the same criterion. Using a system to the **nearest tenth** provides the **high degree** of **sensitivity** needed for the reasoning presented immediately above under 1).

Beyond this, the main thing to do is to make sure that the **highest** score (5.0) goes to a new product concept that has the **most favorable** evaluation on a criterion. Thus, it is necessary with each criterion to determine what is the **favorable end** of each criterion. Lets do this with each of the four criteria discussed used in my example.

With the **entry barriers** criterion, **high** competitive barriers are more **favorable** than low barriers because high barriers mean **less competition**, which is **good**. Thus, a new product concept in a product category with very **high** barriers to entry should receive a rating of 5.0.

With the **segment size** criterion, a **larger** size probably is more **favorable** than a smaller size, as larger sizes mean **more sales potential**. Thus, a new product concept being evaluated that is likely to be attractive to a very **large** segment or segments should receive a rating of 5.0. Larger sizes are more positive only if expected amount of competition is a separate criterion. This is because larger segments tend to attract more competition but this relationship can be considered as long as both criteria are used.

With the **segment dissatisfaction** criterion, **higher** levels of **dissatisfaction** with current competition are more **favorable** than lower levels of dissatisfaction because dissatisfaction with current competition creates an opportunity for success for a new entrant. Thus, a new product concept being evaluated that will be attractive to a segment or segments that are highly **dissatisfied** with current competition should receive a rating of 5.0.

With the **resource compatibility** criterion, **higher** levels of **compatibility** are more **favorable** because the **costs** of developing and marketing the new product concept will be **lower** if the organization already has the resources and strengths needed for success with a specific new product concept. Thus, a new product concept with which the organization already has all the skills and resources required for success should receive a rating of 5.0 on this criterion.

- 3) **Who** within the organization should determine the **ratings** of each new product concept on each evaluation criterion?

**Different** people should be used with **different criteria**. For example, someone with an **economics** background probably is best able to rate concepts on the

**barriers to entry criterion** while someone with a **technical** background is best able to determine the **potential for obtaining an effective patent** and someone with a **marketing** background is best able to assess the **degree of customer dissatisfaction** with current competition.

**Multiple** people should be used in determining the **ratings** of the new product concepts on each evaluative criterion because the ratings usually are somewhat **subjective**. In this situation, the use of **multiple** raters allows **differences of opinion** to be discussed and a consensus may be reached that is different than any individual's ratings would be.

- 4) **HOW** should the **ratings** of each new product concept on each evaluative criterion be determined?

It depends on the evaluation criterion and even the new product concept. However, in general either a) some **judgment** is used **by itself** or else b) a **combination** of **judgment and research** is used. In terms of the role of research, much depends on whether research is relevant to the particular evaluative criterion. For example, research usually is relevant with the **CUSTOMER dissatisfaction** criterion but judgment probably could be used by itself with the barriers to entry criterion.

- 5) Continuation of numeric example started previously.

Here we will keep things simple again by rating only **two** unidentified new product concepts (NPC 1 and NPC 2) on each of the four criteria identified. Note, as discussed previously, I am using a 1.0-5.0 rating system with ratings expressed to the nearest tenth. Do not worry how I came up with the numbers as I basically did so randomly.

	NPC 1	NPC 2
Entry barriers criterion	5.0	3.5
Segment size criterion	5.0	2.8
Segment dissatisfaction criterion	2.1	5.0
Resource compatibility criterion	5.0	3.4

**TRANSITION POINT:** Summary of description of indirect assessment process to this point.

So far, only the **first three** steps have been described (Go back to page 12 and 13 for a refresher on the entire seven steps.). Each of the prior first three steps was a **decision** step, with the latter two being **quantitative** decisions. The **next two** steps are strictly **calculational** steps that involve using the numbers determined in the second and third steps to generate a **single overall numeric** score for **each new product concept**. The numbers from our example will be used to demonstrate each of these next two calculation steps. The discussion with each of these calculational steps is quite short because the only explanation needed is on the **logic** of the calculations and the logic actually is quite simple and similar in a broad sense to the reasoning in

the prior set of **positioning** notes pertaining to the **weighted average difference** approach used to evaluate how satisfied market segments were with existing competition.

The basic concept in the calculations is that the ratings of a new product concept on each criterion are **combined** into a **single overall or average** score, using a **weighted averaging** approach, with **importance** weights of the criteria used as **weights**.

- D. For each new product concept, **multiply** the **importance weight** of an evaluation criterion (from **step 2**) by the **rating** of the new product concept on each criterion (from **step 3**). Do this with each criterion. (the **FOURTH step** in the 7-step indirect evaluation process)

This is done below with each of the two unidentified new product concepts on each of the four previously identified criteria. Note that this examples using the same importance weights for each criterion although I previously discussed when and why importance weights should be different for different product concepts under 6 starting on page 17.

**New Product Concept 1**

$$.15 * 5.0 = .75$$

$$.10 * 5.0 = .50$$

$$.4 * 2.1 = .84$$

$$.35 * 5.0 = 1.75$$

**New Product Concept 2**

$$.15 * 3.5 = .525$$

$$.10 * 2.8 = .28$$

$$.4 * 5.0 = 2.0$$

$$.35 * 3.4 = 1.19$$

- E. **Sum** the calculations from “D” **separately** for **each new product concept** to obtain a **single overall numeric score** for each new product concept. (the **fifth** step in the 7-step indirect evaluation process)

Using our example, this is done below.

**New Product Concept 1**

$$.75 + .50 + .84 + 1.75 = 3.84$$

**New Product Concept 2**

$$.525 + .28 + 2.0 + 1.19 = 3.995$$

Although concept 2 has a slightly higher score, it is premature to decide which concept or concepts, if any, should enter development. First, we need to establish a quantitative decision threshold as discussed below under F. Assuming both concepts exceed the threshold, we then need to determine if we have the human and financial resources to begin development of both concepts. If neither concept exceeds the threshold, then we would not begin development of either concept at this time. In addition, as discussed **shortly** under the last step, namely G, it is not always wise to select the NPC with the highest numeric score, particularly when the score is only **slightly** higher than the score of another NPC, as is the case in our example. With this transition, let’s proceed to the last two steps in the seven step weighted averaging indirect evaluation approach.

- F. Establish a **quantitative decision standard threshold**. (the **sixth** step in the 7-step indirect evaluation process)

This step involves determining a **minimum total** score value that a new product concept must reach for it to either begin development or else continue with further development.

For example if a **decision standard threshold** of **3.75** were used, then both new product concepts 1 & 2 would exceed the threshold (as their scores are 3.84 and 3.995). Thus, the decision would come down to whether there are sufficient funds and human resources to begin development of both concepts. On the other hand, if a decision standard threshold of **4.0** were used, then neither of these two new product concepts would enter development. However, it would be wise to proceed to the last step to see if the importance weights should be changed for at least **two** of the four criteria with one or even both concepts. (I say “at least two” criteria because the weight can never be changed for just a single criterion since the weights of all criteria need to sum to 1.0. Thus, if the weight of the first criterion were increased from .15 to .20, it would be necessary to reduce the weight of the other three criteria collectively from .85 to .80.)

- 1) How high or low should this threshold standard be?

This is a difficult decision that involves a **tradeoff**. Setting a **high** threshold runs the risk of screening **out** a new product concept that **would have been very profitable** if it had been developed and launched. On the other hand, setting a **lower** threshold runs the risk of allowing a **loser** to enter development and drain development resources away and slow down development of another new product concept that would have been successful if it had been launched faster. In addition, it becomes more difficult psychologically to terminate a new product concept later in the process once significant **development** funds have been committed as this involves a sure loss without any chance of covering the already invested development costs, which can be quite large.

- G. Reevaluate new product concepts whose total scores exceed the decision threshold to see if any concepts have a **fatal flaw** as discussed below. Also, consider revising the **quantitative importance weights** for two or more criteria, even if this is done with only some concepts because they are in different product categories or involve different positioning approaches. As discussed previously under 6 starting on page 17, different weights with some criteria may be used when evaluating one new product concept than the weights used when evaluating another new product concept on the same criterion.

- 1) Using the **fatal flaw** concept to explain why a criterion-by-criterion evaluation may result in terminating a new product concept even when the total score **exceeds the decision threshold**

The concept of a **fatal flaw** is that a very low score on **only one** or possibly a combination of two criteria could be a strong indication that the concept will fail even if it gets the very highest ratings on all of the other criteria. In other words,

only one problem or else a combination of a couple of problems often could cause a new product concept to fail.

As one example of a fatal flaw, if another emerging competitor is unexpectedly able to get effective patent protection, this by itself could put us at a competitive disadvantage that we would not be able to recover from. As another example of a fatal flaw involving a **combination** of flaws, if low barriers to competitive entry exist and the organization is unlikely to have either a cost or a technology advantage over many emerging competitors, then it is very likely that the concept would fail even if there is a high degree of customer dissatisfaction with existing competition, there is a good fit with organization resources, and obtaining both distributor and supplier support will be easy. As still another example of a fatal flaw, the inability to get retailers to carry a new brand in a product category that is a **convenience** good that needs widespread retail acceptance will doom the new product to fail regardless of how strong the concept rates on other criteria. I could give a lot of other examples as fatal flaws often exist because it usually takes only one big problem for new products to fail. This is why the vast majority of new products do fail.

- 2) Using the previously discussed concept of the **situational** nature of importance weights to explain why a **reassessment** of importance weights should be conducted when a decision is a close call

The initial calculations and total scores often are based on having the importance weight of each criterion stay the **same** for all new product concepts being evaluated. However, as discussed previously under 6 starting on page 17, the importance weights of many criteria might be significantly different when evaluating new product concepts in some product categories than when evaluating new product concepts in other product categories. Thus, if only one set of importance weights was used in the initial set of calculations, these importance weights need to be reassessed.

Realize that any change in the importance weights must change weights of at **least two** criteria because they sum to 1.0. The fact that the weights of at least two criteria need to be changed, with an increase that equals the size of the decrease, it is likely that any change in weights will have a significant impact on the total score.

- 3) Since it was indicated above in 2 that **importance weights** should be reassessed, should the **ratings** of any of the new product concepts be reassessed during this last step?

Although this ratings reassessment is possible, it usually is not necessary to do this, at least if the initial ratings were selected carefully and with research. Also, changing the rating of a new concept on one criterion will have very limited impact on the total score.

**TRANSITION POINT:** That is it on new concept, prototype, and new product **evaluation** as part of new product planning. Most of these notes have been devoted to a detailed discussion of the **weighted averaging indirect** evaluation approach used for new product concept screening. The remainder of these notes focus on **customer research** in the new product planning process. Three types of customer research are discussed – **a) concept testing, b) customer product use testing, and c) test marketing**. Each of these three types of customer research was mentioned at the beginning of these notes in giving an overview of the NPPP. However, each type is discussed in more detail in the remainder of these notes.

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## DISCUSSION OF CUSTOMER RESEARCH APPROACHES IN THE NEW PRODUCT PLANNING PROCESS

### I. Concept testing

#### A. Description

This research describes one or more new product concept ideas, verbally and/or through drawings or pictures, to a sample of respondents. Respondents are asked such questions as what things they like about the concept, what things they dislike, how it compares to established competition if such competition exists, how it compares to other new product concepts, and how likely they would be of purchasing each concept.

#### B. **When** in the new product planning process would concept testing be conducted?

Concept testing is done after concept or **idea generation** and before **development** starts. As discussed starting at the bottom of page 1 of these notes, concept **testing** often is incorporated into concept **screening**. If **multi-stage** concept screening is done, as discussed starting on page 7 of these notes, **concept testing** often is done after the **first-stage** or even the second-stage screening. Concept testing would never be conducted once a prototype is developed. This is because customer product use testing, which is more accurate than concept testing, can be done once a prototype is developed. At the same time, customer product use testing cannot be conducted before a prototype is developed, which means that concept testing is the only type of customer research that can be conducted before a prototype is developed.

#### C. What is the **objective** of concept testing?

The **main** objective is to provide input to the concept **screening** process conducted to help determine what new product concept or concepts are funded for development.

Although a wide range of criteria should be used to screen/evaluate new product concepts (see the earlier discussion of the **criteria** to use in the **indirect evaluation** of profitability approach starting on page 15), customer reaction to and enthusiasm for a new product concept, measured through concept testing, often is **one** relevant criterion to use in evaluating new product concepts.

#### D. **Evaluation** of concept testing

In general, concept testing is rather inexpensive and not particularly time consuming. The big question with it is its degree of accuracy because it is often hard for customers to predict how likely they would be to purchase the concept based **only** on a description of it. The concept of accuracy is discussed in more detail below, with the focus being that concept testing sometimes is very inaccurate but sometimes provides at least sufficient accuracy to include concept testing results as one criterion in the weighted averaging indirect evaluation approach.

- 1) When and why does concept testing tend to generate rather inaccurate predictions of purchasing behavior?
  - (a) Concept testing does not provide an accurate indication of the probability of purchase when a **verbal and/or pictorial description** of the concept cannot provide sufficient information to customers for them to determine the extent that it meets their needs and desires. Putting this another way, the key DBs with some new product concepts need to be **experienced** rather than merely described for customers to begin to evaluate their reaction to the concept.

A number of examples can be given of types of products where evaluation needs to be based on **experience** rather than on the **description** that is provided in concept testing. I will give only a few examples. **Food** products, which people need to **taste**, and **software**, which people need to **use** to determine the ease of use, are only a couple of examples of broad product categories within which concept testing will provide **inaccurate** indications of customer reaction if and when the concept would be developed and introduced. Concepts that involve a **human service** component also do not work well with concept testing, as service needs to be experienced to be evaluated. Many other examples of product categories with which concept testing would not work well because key customer benefits need to be **experienced** could be cited.

Since I have focused only on the negative to this point, let me also discuss product categories where concept testing would provide reasonably accurate results. One such product category is **clothing**. Since the main DB is appearance or style, this can be shown through drawings rather than through actual experience. As long as the people sampled are opinion leaders/trend setters, concept testing can work well with clothing. It also can be used effectively with concepts that are more improvements of existing products rather than totally new products. It would work well with cars and trucks for example, where the major DBs on which the new concept is possibly improved can either be described in words (such as gas mileage) or shown in a drawing, as is the case with a new style or appearance of a car. A lot of other product categories could be cited with which concept testing can provide results that are sufficiently accurate that concept testing should be conducted.

- 2) Given the questionable accuracy of concept testing with some product categories, should it usually be **skipped**?

Since concept testing can be done relatively cheaply, quite quickly, and it also maintains secrecy from competition, the only factor that would cause it to be skipped is a lack of accuracy. As discussed above, there are many product categories where concept testing will provide inaccurate results but also many product categories where it will provide accurate results. Of course, it should be skipped if the results will be inaccurate, such as with food products, at least when taste is an issue.

## II. Customer **product use** testing

### A. Description

An actual developed prototype version of a new product is **given** to a sample of customers for **actual use**. After the **usage experience**, the sampled customers are asked **questions** about their reaction to the **prototype**. Such questions as what they liked about the product, how it compares to competition, what could be improved, what price they would be willing to pay for it, how likely they would be to purchase it, and how much they would be likely to purchase tend to be asked.

Note that the questions asked with customer product use testing are very similar to those asked in concept testing. The big difference between concept testing and customer product use testing is that customers are given only a **description** of a concept in concept testing but given an **actual prototype** to use and **experience** with customer product use testing. Concept testing involves only a description because it is done long before a prototype is developed. Concept testing is done before it has been determined that a new product concept will even enter development.

### B. **When** in the new product planning process would **customer product use** testing be conducted?

Because this research involves **giving** the **prototype** to customers, this type of research cannot be conducted until prototypes are developed and this does not occur until partly through the marketing strategy and product development stage of the new product planning process. Customer product use testing often is conducted **multiple** times because the prototype often is **changed** or modified based on results of **initial** customer product use testing. When prototypes are changed, it often is appropriate to do customer product use testing on the **revised** prototypes.

### C. What are the **objectives** of product use testing?

Unlike concept testing, which had only a single objective, customer product use testing has three objectives, each of which is discussed below. The first two objectives below are the more important ones.

- 1) One objective is to determine whether or not to **terminate development** with the new products tested.

If customers are not satisfied with their use experience or are less satisfied with the new product prototype than with competitive products, then the prototype either would need to be modified by continuing development **or** else development should be discontinued.

- 2) A second objective is to **refine/change** the **prototype**. Often customers will suggest improvements in the new product attributes or determinant benefits. In some instances **multiple versions** are given to customers for use to determine **which version** they are **most satisfied** with.
- 3) A third objective is to help develop and refine the **market target**. This objective is achieved by comparing and contrasting the reaction of different market segments to the prototype tested. Obviously segments with a more positive reaction should receive higher priority for market target selection.

#### D. **Evaluation** of customer product use testing

- 1) Strengths of customer product use testing
  - (a) Because customer reaction is based upon actual first hand **experience** with the new product, customer reactions are quite accurate.
  - (b) Unlike typical types of **test marketing** (soon to be discussed) customer product use testing also usually can be kept **secret from competition**, at least in **consumer** markets. Secrecy is a much bigger problem in **business** markets as discussed in the below paragraph.

The only way competitors would find out about a new product through product use testing is if a **sampled customer** told competitors about the new product. This is extremely unlikely of happening in **consumer** markets because consumers have no relationship with competitors. However, **competitors** in **business** markets could find out about a new product being product use tested because some **business** customers have close relationships with salespeople working for competitors. Based on this concern in of conducting customer product use testing in **business** markets, this type of testing may be **skipped** in **business** markets, as discussed in more detail shortly.

- 2) Limitations of customer product use testing
  - (a) It does **not** provide **accurate** information about what **price** customers are willing to pay for the new product.

Accurate information on customer reaction to **pricing** cannot be generated by asking customers how much they are willing to pay for a product, even after they have used a prototype. Customers may react differently when they actually need to spend their own money with actual purchasing. For example,

if they are smart, they may tend to say they would pay **less** than they actually would be willing to pay, thinking that low balling on price might persuade the researcher to price the product at a lower level.

- (b) It does **not** provide any information about the effectiveness of any aspects of marketing communications (**promotion**) or channels of distribution (**place**) because these components of the marketing mix are **not tested** in customer product use testing. More specifically, since the product is **given** to customers, normal marketing channels, such as retailers, are not used. Because customers are given the product to use rather than having to purchase it, there is no reason to expose them to any form of repeated promotion at this time, and repeated promotion is the type that exists once a new product is actually launched.
- 3) Given the above strengths and limitations of customer product use testing, when should it be used and when should it be skipped?

It should be **skipped only** when a) important **business** customers who would need to be included in customer product use testing have **close relationships** with **competitors**, b) a high degree of customer satisfaction was expressed during **concept** testing with products in which concept testing can provide at least reasonably **accurate** predictions of customer purchasing, and c) **little or no uncertainty** exists about the **proper design** of the new product.

The reasoning for **skipping** customer use testing in each of the **three** above conditions is discussed below. Realize that **both** the second and third conditions below would need to exist in the same situation in order to justify skipping customer product use testing. If only one of these two below conditions exists, it still makes sense to use customer product use testing because you only need to have one of these two possible objectives relevant to conduct it.

- (a) If the **first** above condition exists, then **competitive secrecy**, which often is critically important in business markets, could easily be lost through **customer product use testing**.
- (b) If the **second** above condition exists, then the previously discussed **first objective** of customer product use testing is a **low** priority objective.

This objective involved using customer product use testing to determine whether to **terminate** development of a new product. If customers were **extremely satisfied** with the new product concept in **concept testing** when concept testing is going to be accurate, then customer product use testing has little added value. Clothing items, as mentioned under concept testing, provide a good example where concept testing is reasonably accurate, and thus there is no reason to conduct customer product use testing, at least to determine whether to terminate development. However, customer product use testing still should be conducted unless the third condition below also exists. As

discussed at the top of the page customer product use testing should be skipped only if **neither** of the two main objectives of this testing are low in priority.

- (c) If the **third** condition above exists, then the previously discussed **second objective** of customer product use testing is a **low priority** objective.

As a reminder, this objective involved using customer product use testing to help **determine product specifications**. If management is quite certain that it has the product specifications that customers prefer without conducting customer product use testing, then customer product use testing is not needed to help determine these specifications. This knowledge of product specifications often exists with **business** customers because these customers often contact their suppliers with suggestions for new products along with appropriate product specifications during the idea generation phase of new product planning. In other words, business customers and suppliers often work together on developing and improving new products so there is ongoing communication between them, which lessens the need to do formal customer product testing in many instances in **business** markets. However, this second objective of customer product use testing usually is higher priority in **consumer** markets, even if the product is not that technically complex, such as with many food products when taste is important.

### III. Basic Description of **Standard Test Marketing** and Comparison with **Rollout**

#### A. Basic description of **standard** test marketing

A new product is **introduced for sale** in a **limited number** of cities or communities, with **one or more** comprehensive **marketing mixes** being used. **Actual retailers** are used for **distribution** and **actual marketing communications** are used in the communities or markets involved. Actual sales results are measured and interpreted in the markets used. In many instances, **multiple marketing mixes** are used with test marketing to help determine which marketing mix is most effective and efficient.

#### B. Comparison of **standard test market** to **rollout**

A **rollout** is a type of commercialization or launching of a new product. I want to compare a standard test market to a rollout because **rollouts** have a very important **similarity** to a **standard test market**, which can make it **difficult** to determine when a rollout is being used vs. when a standard test market is being used.

##### 1) **Similarity** between a **standard test market** and a **rollout**

A rollout involves introducing a new product for sale in a **limited number** of cities. Actual retailers are used as is actual marketing communications. Actual sales results are measured and interpreted.

As mentioned above under “A,” a standard test market has these same characteristics identified in the previous paragraph. Due to these similarities, it can be difficult to determine when a standard test market is being used rather than when a rollout is being used. However, as discussed below, some **differences** between a standard test market and a rollout do exist.

- 2) The **underlying** and **intangible** difference between a rollout and a standard test market

A rollout has different **goal or objective** than a standard test market has.

More specifically the basic **goal** of a **standard test market** is a **research** one. A standard test market is conducted to a) determine whether to actually launch a new product and/or b) determine what marketing mix is most effective and efficient to use if the new product is actually launched.

In contrast, **research is not a goal** with a **rollout**. With a rollout, management has already decided to actually launch the new product and has already determined the initial marketing mix to use when rolling it out. Instead of being conducted for research, the rollout is viewed as the **first stage** of the actual launch, with the primary objective being to **quickly** generate the **revenues** needed to quickly expand distribution to additional communities. A second reason for rolling out rather than doing a larger scale launch involves trying to **sneak up on competition** by entering the market quietly and on a small-scale basis.

- 3) Description of more **tangible** differences between a standard test market and a rollout based upon the different objectives or goals of the two tools already discussed immediately above.

- (a) The **nature** of the **communities** used for a rollout is different than the nature used with a standard test market.

A standard test market usually uses **representative** communities because it is a **research** approach. A basic principle of any research is that a representative sample should be used.

In contrast, the type or types of communities used in a rollout will depend on which one of the two objectives identified above exists. If the objective is to generate **quick revenue** to quickly expand the initial rollout, then the communities with the **highest potential** should be selected. On the other hand, if the objective is to **sneak up on competition**, then communities will be selected that are **low priority markets** to the **established** competitors.

- (b) The **time** involved in a standard test market usually is **longer** than the intended time involved in the initial rollout communities.

With the **research** objective of a standard test market, the test markets need to

be conducted for a long enough period of time to get accurate research results. This usually involves conducting the standard test market long enough for the **later majority** to enter the market and for at least a **couple of repurchase cycles** to exist with these later adopters. It is important to wait until later majority enter the market because they usually are a **large** portion of a market target. It is important to wait for a couple of repurchase cycles with this segment because the degree of success of most new products depends more on **repeat** purchases than on **initial** or **trial** purchase.

In contrast, in a rollout, the idea usually is to get beyond the first phase of the rollout to later phases **as quickly** as possible before competition can react. Typically, the rollout will be expanded as soon as **sufficient funds** are available for expansion.

- (c) **Multiple** marketing mixes are often used in a standard test market while a **single** marketing mix is always used initially in a rollout.

**Multiple** marketing mixes often are used in a standard test market to test which marketing mix is most effective and efficient. In contrast, because a **rollout** does **not** have a **research** objective, there is no reason to test multiple marketing mixes in a rollout.

C. A more detailed discussion of the **research objectives** with a **standard test market**

Starting rather broadly, a standard test market has a **research** objective that involves helping make new product **launch decisions** that management is uncertain about. The **two** major relevant areas of decision-making are discussed below.

- 1) Should a **true launch** be used, regardless of whether the true launch is a rollout or a full-scale initial launch (or should the new product be **terminated** at this late stage without launching it)?

If the sales levels that exist in a standard test market are lower than needed to go forward with a true launch **and** if it is perceived that the best available marketing mix was used in the standard test market, then the appropriate decision should be to **not** go forward with a true launch. The product would either need to be redesigned and possibly repositioned or else it should be terminated. For example, it may be discovered during standard test marketing that retailers refused to buy and then resell the new product. This is a result that could not have been predicted either by previously conducted concept or customer product use testing.

- 2) What **comprehensive marketing mix** should be used when doing the true launch of the new product?

This objective is achieved by using at least **two** marketing mixes in the standard test market. The **sales results are compared** and the mix that generates the most profit (which would consider different costs of different marketing mixes as well

as different sales) is the marketing mix that should be used when doing the true launch of the new product.

The components of the marketing mix that tend to be tested in a standard test market the most are **pricing** and **marketing communications**, with **advertising** being the component of marketing communications that is varied and tested most often in a standard test market.

These two marketing mix components tend to be varied because a) they can be **changed easily** (unlike the **product** itself, which might need new production materials and equipment to change, along with problems of getting rid of unused inventory) and b) **uncertainty** tends to exist about appropriate **price** and **advertising** levels because a **cost/sales tradeoff** exists with them. For example, lowering price will tend to increase sales volume but will also reduce the revenue generated per unit sold. A cost/sales tradeoff usually exists with **advertising** because the most common way of increasing sales with advertising is to **increase** the **reach** and/or **impact** of advertising (and impact usually is increased by exposing people to advertising **more frequently**) and increasing either reach or frequency tends to increase the **costs** of advertising.

D. Which one of the two above objectives is **more common** with a standard test market?

This **second** objective (determining the better marketing mix to use) is a more common objective in the real world than the first objective (determining whether to launch the new product) for the reasons discussed below.

Customer **product use** testing is helpful in determining whether to launch a new product (the **first** objective) but, as discussed previously, is **not helpful** in developing an effective and efficient marketing mix (the **second** objective). Refer back to the prior discussion of the **limitations** of customer **product use** testing starting on page 30 for a more detailed discussion of why different prices and marketing communications options are not tested in a customer product use test.

In addition, it is better to test the **first** objective (determining whether to launch the new product) **in combination** with the **second** objective (determining the appropriate marketing mix for the new product) rather than testing the **first** objective by **itself**. Let me explain the reasoning for the conclusion in this prior sentence. The problem in market testing a new product with **just one** marketing mix (which means you are testing the first objective by **itself**) is that if the product does not sell well, it is hard to know if the problem is with the product or if it the problem is with the particular marketing mix used. Thus, if the product does not sell well when only one marketing mix is used in the test market, the first reaction is to conduct a **second** test market with a **different marketing mix** and this process can go **on and on** when the product continues to do poorly in these successive test markets. Conducting these **multiple** test markets over an extended period of time can be avoided by testing **multiple** marketing mixes in **one** test market. If the product does poorly with each of the marketing mixes,

then it would be appropriate to conclude that the product is the problem rather than the marketing mix for the product.

E. Are standard test markets used more often in a) **consumer** markets or in b) **business** markets?

1) General answer to this question

Standard test markets are used a lot **less often** in **business** markets than in consumer markets.

2) **General** reason for standard test markets being used less often in business markets than in consumer markets

As discussed above under “D”, the main **unique** objective of test marketing, which **neither consumer product use testing** nor **concept testing** can achieve, is to help determine the **marketing mix** for a new product, particularly with **price** and **advertising**. However, with both a) **price**, and b) **advertising**, this objective usually is a **low** priority one in **business** markets. Let me explain why this is a low priority objective in business markets with each of these two components of the marketing mix.

3) Explanation of **why** standard test markets usually are not needed to help determine **price** in **business** markets

In business markets, price often is **negotiated** with individual customers. Thus, it is not relevant to use a standard test market to determine a **standard** price for the market as a whole.

4) Explanation of why standard test markets usually are **not** needed to help determine **advertising** in **business** markets

As indicated under “D,” standard test markets can be useful in determining how much to **spend** on **advertising**. However, advertising usually is **not** the marketing communications tool used in **business** markets. Instead, **personal selling** usually is the primary marketing communications tool used in business markets.

This may seem like an abrupt ending to the notes but I do not think a general summary is needed.