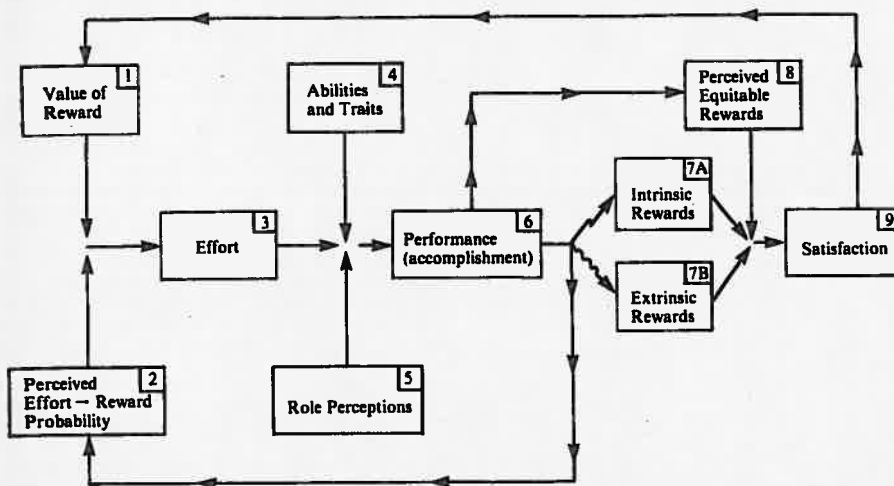


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FIGURE 10-6 Diagram of the Theoretical Model of Porter and Lawler



SOURCE: From *Managerial Attitudes and Performance* by L. W. Porter and E. E. Lawler, 1968, Homewood, IL: Irwin-Dorsey.

many variations proposed. Rather than present each of these variations, one representative treatment of the model will be described.

The Porter-Lawler Model. In a book dealing with managerial attitudes and performance, Porter and Lawler (1968) presented an instrumentality model of motivation and performance. They rejected the traditional drive approach of the need theories because of its emphasis on past response-reward connections. They felt that instrumentality theories more appropriately emphasized the anticipation of future events, an activity much more in keeping with the generally held view of individuals as organisms capable of delaying gratification and dealing with abstract concepts.

Having chosen the instrumentality approach, Porter and Lawler set out to test an initial model aimed at describing behavior in the industrial setting. This model appears in Figure 10-6. The definitions of the various components in Figure 10-6 are as follows:

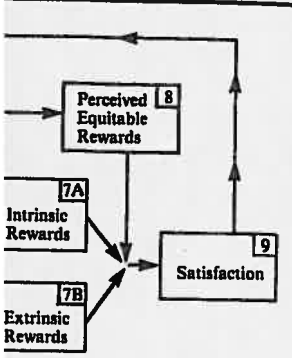
1. **Value of Reward.** This component describes the valence or attractiveness of various outcomes to the individual. Past research in the area of job satisfaction makes it clear that people attach different preference values to outcomes; for example, while one person may value pay more than pleasant coworkers, a second person may value pleasant coworkers more than pay. Although the exact manner by which outcomes acquire preferential value, or valence, is unspecified in the model, at least one way is suggested

- by the feedback loop acquire valence as a the position of the d
2. **Perceived Effort-Reward** estimate of the indiv estimate of the indiv of some valued rew comprises two specific su that improved perfor that the probability that e two probabilities are that if either one of ability will be zero. A values good grades b with a reputation for see a high relationshi have a dimmer view reward.
3. **Effort.** This componer energy) and perform theory or research. T of how hard an indiv performs. To return t he may very well ha but performed poorly
4. **Abilities and Traits.** In or fixed levels of abili "all other things bei this component as a Abilities and traits rel such as intelligence, These abilities and tr individual's performa
5. **Role Perceptions.** The cessful performance c mining whether effor has an inappropriate wasted. For example, cells is likely to make community. This wou tions might be thoug a supervisor and a su they agree, then effo they disagree, it is un by the immediate sup

by the feedback loop from "satisfaction" to "value of reward"—rewards acquire valence as a function of their ability to "satisfy." This would be the position of the drive theorists.

2. **Perceived Effort-Reward Probability.** This component refers to the subjective estimate of the individual that increased effort will lead to the acquisition of some valued reward. As Porter and Lawler point out, this really comprises two specific subjective estimates or probabilities: (1) the probability that improved performance will lead to the valued reward ($P \rightarrow R$) and (2) the probability that effort will lead to improved performance ($E \rightarrow P$). These two probabilities are thought to have a multiplicative relationship such that if either one of the values is zero, the perceived effort-reward probability will be zero. An example of this would be the case of a student who values good grades but finds himself in a class being taught by a professor with a reputation for not giving many As. Even though the student may see a high relationship between effort and performance, he would probably have a dimmer view of the relationship between performance and valued reward.
3. **Effort.** This component clarifies the distinction between effort (or expended energy) and performance, a distinction that was rarely clarified in earlier theory or research. This component is intended to supply an explanation of how hard an individual works, rather than how effectively an individual performs. To return to our example of the student striving for good grades, he may very well have expended a great amount of energy in the course but performed poorly on the tests.
4. **Abilities and Traits.** In the past, models have asked us to accept constant or fixed levels of abilities and traits, generally in the form of the statement "all other things being equal." Porter and Lawler appropriately include this component as an independent source of variation in their model. Abilities and traits refer to relatively stable characteristics of the individual such as intelligence, personality characteristics, and psychomotor skills. These abilities and traits are considered as "boundary conditions" for the individual's performance. They set upper limits for performance.
5. **Role Perceptions.** The role perception is an individual's definition of successful performance on a particular job. This is a critical factor in determining whether effort is transformed into good performance. If the person has an inappropriate definition of success, much of her effort might be wasted. For example, a police officer who defines her role as filling jail cells is likely to make a number of illegal arrests as well as enemies in the community. This would be an inappropriate role perception. Role perceptions might be thought of as the agreement or lack of agreement between a supervisor and a subordinate about the nature of good performance. If they agree, then effort can be transformed into effective performance. If they disagree, it is unlikely that effective performance (at least as defined by the immediate supervisor) will result.

Porter and Lawler



E. Lawler, 1968, Homewood, IL.

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6. **Performance.** Performance refers to the level of accomplishment the individual achieves. Performance has been the overriding concern of industry for decades. This is understandable, but it is important to consider the many components of successful performance as suggested by the model. Performance is the result of the combined effects of effort expenditure, role perceptions, and ability and trait patterns.
7. **Rewards.** Although the original model included rewards as a single component, Porter and Lawler decided to distinguish between intrinsic and extrinsic rewards. *Intrinsic rewards (7A)* are rewards that satisfy higher-order needs (in the Maslow sense) and are administered by the individual to himself rather than by some external agent. The wavy-line connection in Figure 10-6 implies that a direct relationship exists between performance and intrinsic rewards only when the job design is such that the worker feels challenged in the completion of job-related activities. *Extrinsic rewards (7B)* are rewards administered by an external agent such as the individual's immediate supervisor. This line is wavy owing to the sporadic nature of the relationship between successful performance and extrinsic rewards. External rewards are not always provided when a task is successfully completed; the supervisor may not be aware of the success or may not have the time or inclination to administer the appropriate reward.
8. **Perceived Equitable Rewards.** This component is a description of the level of reward that an individual *feels is appropriate*. It is determined by the individual's perception concerning how well she fits the role requirements of the job and her perceptions of how well she actually performs on the job.
9. **Satisfaction.** Porter and Lawler refer to satisfaction as a "derivative variable." It is derivative in the sense that its meaning or value is determined by the individual's comparison of what he considers an equitable reward with the amount of the actual reward. To the extent that the perceived equitable reward exceeds the actual reward, the individual is dissatisfied; if the actual reward exceeds the perceived equitable reward, the individual is satisfied. The larger the difference between these two values, the greater the degree of dissatisfaction or satisfaction.

The Porter-Lawler model is a good description of the components of a complete instrumentality description of work behavior. There have been no tests of the full model, and it is best to think of it as a heuristic device that help you to appreciate the various pieces and the complexity of the motivation and performance puzzle. As an explanatory mechanism, there are two problems with it. First, it places a heavy emphasis on rational decision making. This is unrealistic. Most humans could be characterized as displaying limited rationality. How else could we account for war, drug use, smoking, the American high school, and child abuse? Second, it assumes that effort is unaffected by abilities and traits and is exclusively a product of estimates of reward probabilities and values of rewards. Recent research and theory raises

serious questions about the amount of research, nevertheless, it is important that various instrumentality researchers alike of the results of that research and performance are provided by J. P. C. & Trumbo, 1980).

Recent Research on the amount of research considerably. This is done by researchers alike of the motivation and performance are provided by J. P. C.

The research on the different forms. There is a relationship, and expectancy theory, and expenditure, performance measurement problems each of these three variables. Each of these three variables class of studies deals with the instrumentality model. Final or environments that are predicted to predict worker behavior.

Tests of VIE Model several times. The most recent version (1968) described by Graen (1969) and Lawler's version of the cognitive process model by Naylor, Pritchard, and Lawler. The model and the later version predicted more accurately that individuals have effort in an environment plays a role in high levels of performance. He suggests that this variable. He suggests that in laboratory settings. In day-to-day activities is perseverance, resiliency, but not adequately described.

One common finding and the V, I, and E components are particularly strong. Typically, the components are in the .25 to .50 range. This is usually when the

In an early meta-analysis

accomplish the individual's concern of industry. It is important to consider the suggestions of the model. Aspects of effort expenditure,

rewards as a single component. The relationship between intrinsic and extrinsic rewards that satisfy higher-order needs is illustrated by the individual's wavy-line connection between performance and effort. It is such that the worker's activities. *Extrinsic rewards* such as the individual's need for the sporadic nature of intrinsic and extrinsic rewards. A task is successfully completed if the success or may not be appropriate reward.

Description of the level of effort is determined by the individual's role requirements of the job. The individual performs on the job. As a "derivative variable," the value is determined by the perceived equitable reward with which the individual is satisfied; if the actual reward is less than the perceived equitable reward, the greater the degree

of the components of effort. There have been no studies as a heuristic device that the complexity of the motivation theory, there are two probabilistic decision making. The model is displayed as displaying limited drug use, smoking, the model assumes that effort is a product of estimates of effort and theory raises

serious questions about this assumption (e.g., Bandura, 1986, 1987). Nevertheless, it is important to be aware of the research that has been done on various instrumentality predictions. In the following section, we will consider the results of that research in summary form. A more extensive review of this literature can be found in earlier editions of the text (Landy, 1985; Landy & Trumbo, 1980).

Recent Research on Instrumentality Models. In the past two decades, the amount of research being conducted on instrumentality models has grown considerably. This is due, in part, to the general acceptance by managers and researchers alike of the important role that cognitive activities play in motivation and performance. Excellent reviews of the early history of this research are provided by J. P. Campbell and Pritchard (1976) and T. R. Mitchell (1974).

The research on the general topic of "instrumentality" has taken several different forms. There are several studies that combine valence, instrumentality, and expectancy in particular ways in an attempt to predict either effort expenditure, performance, or both. Another class of studies deals with basic measurement problems in tests of the models, particularly the way in which each of these three variables is operationally defined or measured. A third class of studies deals with different approaches to testing the basic instrumentality model. Finally, several studies examine characteristics of workers or environments that affect the degree to which instrumentality models can predict worker behavior. I will try to synthesize the results of these studies.

Tests of VIE Models. Vroom's basic model (1964) has been expanded several times. The most comprehensive expansion was the Porter and Lawler version (1968) described above. Following that, revisions were also suggested by Graen (1969) and Lawler (1971, 1973). Perhaps the most elaborate expansion of the cognitive portion of the VIE model has recently been proposed by Naylor, Pritchard, and Ilgen (1980). Most of the tests of both the initial model and the later versions have yielded about the same results: effort is predicted more accurately than performance. This makes sense logically. Individuals have effort under their control but not always performance. The environment plays a major role in determining if and how effort will yield high levels of performance. Bandura (1987) criticizes this choice of dependent variable. He suggests that it was chosen because it is easy to operationalize in laboratory settings. Nevertheless, he feels that a good deal of variation in day-to-day activities is not the result of effort but is the result of ingenuity, perseverance, resiliency, and other variables that are equally "motivational" but not adequately described by the term *effort*.

One common finding is that even though the theory suggests that effort and the V, I, and E components are interrelated, this relationship is not particularly strong. Typical correlations between effort and the other components are in the .25 to .40 range. Correlations are occasionally higher, but this is usually when the measure of effort is a self-report.

In an early meta-analysis of VIE studies, Schwab, Olian-Gottlieb, and