Incentives, Motivation and Workplace Performance: Research & Best Practices

RESEARCH SPONSORED BY:

The International Society for Performance Improvement

RESEARCH FUNDED BY:

TheIncentiveResearchFoundation

SPRING 2002

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Introduction & Purpose

Each year, U.S. corporations spend nearly twenty-seven billion dollars on non-cash incentives, such as merchandise, meals, travel, and recognition awards. When cash incentives are included, the figure is estimated to be as high as $117 billion annually. In spite of 100 or more years of studies on the impact of incentives, discrepancies about their value remain.

For years, researchers from the fields of accounting, education, economics, communications, human factors, psychology, and sociology, have conducted various organizational and laboratory studies on the subject of incentive systems. Due perhaps to the breadth of such research conducted by so many varying disciplines, conflicting information and controversies have resulted. This report was prepared with the goal of creating clear, comprehensive, and accurate conclusions about incentive systems that are supported by research and practice.

How This Report Was Developed

As mentioned above, extensive research exists on the value of incentive systems; however, conflicts among their findings required that a detailed statistical analysis of existing literature be conducted. The statistical technique – known as a "meta-analysis" -- was used to assess and evaluate trends and information from more than 45 studies. In addition, web-based questionnaires and telephone interviews provided survey input from a sample of 145 U.S. organizations that use incentive systems. Trends in current practices and the results that were received from these instruments are included here as well.

This research was conducted by:

- Dr. Harold D. Stolovitch, Project Director and Principal Investigator
- Dr. Richard E. Clark, Principal Investigator
- Dr. Steven J. Condly, Researcher

How To Use This Report

This is a landmark report that consolidates and bridges gaps that exist in previous studies; therefore, it should be viewed as an authoritative, consensual picture of incentive systems in general. Questions that guided the research address many basic assumptions concerning tangible and intangible incentive awards. In short, refer to this report for answers to such questions as the following:

- Do incentives increase work performance?
- What kinds of incentive systems are most effective?
- What organizational conditions indicate a need for an incentive system?
- What model best expresses the events that occur during the selection and implementation of successful incentive programs?

Along with answers to the previous questions, that report also includes a statistically validated, eight-event model describing the process by which incentives influence performance. This is known as the "Performance Improvement By Incentives (PIBI) Model."

What Is The Incentive Research Foundation?

The Incentive Research Foundation (formerly the SITE Foundation) funds and promotes research to advance the science, enhance the awareness and appropriate application of motivation and incentives in business and industry globally. The goal is to increase the understanding, effective use and resultant benefits of incentives to businesses that currently use incentives and others interested in improved performance.

What Is The International Society for Performance Improvement?

Founded in 1962, the International Society for Performance Improvement (ISPI) is the leading international association dedicated to improving productivity and performance in the workplace. ISPI represents more than 10,000 international and chapter members throughout the United States, Canada, and 40 other countries. Its mission is to develop and recognize the proficiency of its members and to advocate the use of Human Performance Technology.

How This Report Is Organized

Shown below are the major sections of this report.

SECTION KEY	PAGE
Executive Summary	1
Value of Incentive Systems	7
The Performance Improvement By Incentives (PIBI) Model	15
Appendix	27

We Welcome Your Questions and Comments!

In order to ensure that we fully support your efforts, please feel free to contact us. In addition, we welcome your feedback. Please direct your comments or questions to:

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Executive Summary

Introduction

Within this section, you will find overviews of:

- Significant findings from both the meta-analysis and survey results.
- The Performance Improvement By Incentives (PIBI) Model – an approach to selecting and implementing a tangible incentives program.

Note: For the reader interested in learning more about the methodology or specific details of data gathering and analysis, please refer to the Appendix. Additionally, more details are provided in the next section of this report.

The Value Of Tangible Incentives

Significant meta-analysis and survey findings reveal:

- Properly selected and administered tangible incentives (cash and awards) can dramatically increase work performance.
- When tangible incentives are carefully selected, implemented, and monitored, they increase incentivized work performance an average of 22%.
- Tangible incentives can significantly increase one's intrinsic interest in incentivized work tasks.
- Previous claims that tangible incentives often cause unintentional decreases in the intrinsic (personal) value for work tasks are not supported by current research.

Overall Ability To Meet Objectives

- In 57% of the cases reported, objectives were either met or surpassed.
- In 92% of the cases, objectives were surpassed, met, or at least partially met.

Note: No evidence was found to support the impact of intangible incentives such as employee of the month or other recognition incentives.

Conditions For The Use of Tangible Incentives

Tangible incentives work to different degrees according to the conditions in which they are implemented. For example:

To encourage something never done before: Tangible incentives yielded an average 15% increase in performance – the lowest of any type of performance goal.

To focus on and persist in working toward a goal: Tangible incentives increase performance by 27%.

To encourage "thinking smarter": Tangible incentives increased performance an average of 26%.

To incentivize quality versus quantity goals: Tangible incentives had an equal effect on both quantity goals and quality goals.

To Incentivize Teams vs. Individuals: Incentivized teams increased their performance by 45%; incentivized individuals increased performance an average of 27%. The increase in team performance is thought to result from decreased "social loafing" that occurs in teams, because of the monitoring required by incentive programs. Clearly, peer pressure has significant value.

Additional Value of Tangible Incentives

Team Member Retention: Team member retention tends to be lower in organizations using incentives to award performance. This may be due to the possibility that the "individual assessment" impact of group incentives drives out under-performing team members.

Hiring and Retention: There is good evidence that organizations using incentive systems are able to hire and retain higher quality workers and that as the size of an organization increases, quality hiring and retention effects increase as well.

Types of Tangible Incentive Programs

There are four general types of tangible incentive program types or schemes widely in use. These include the following.

- **Quota-Based Programs** -- incentives are given for meeting or exceeding a performance goal.
- **Piece-Rate Incentive Programs** -- for increasing rates of performance – doing more of something.
- **Tournament Programs** -- where individuals and/or teams compete with each other for incentives.
- **Fixed-Rate Incentives** – salary-based compensation.

How They Compare

- Quota-based incentive programs were the most effective.
- Piece-rate incentive programs were significantly less effective than quota-based plans.
- Piece-rate programs are significantly more effective than either tournament schemes or fixed-rate incentives.
- Tournament and fixed-rate incentives were equal to each other in terms of their impact on performance.

Motivational Variables

Certain "motivational variables" help explain the differences in value of these different approaches. These variables include:

- **Utility:** The incentivized task is worth the effort.
- **Control:** The employee has the ability to earn the award if he/she chooses.
- **Goals:** The goals are both specific and challenging.

Why Quota Approaches Work Best

- There is evidence that quota schemes increase task utility, because the employee can earn more than base salary by performing the task.
- Quota approaches also increase the person's perception of control – employees can decide for themselves to exceed the performance target.

- Additionally, assigned goals that are both specific and challenging lead to performance gains greater than those realized with goals that are vague or easy.
- Thus, quota approaches maximize the effect of motivational variables on worker performance.

Note: In the survey of organizations using incentive systems conducted for this study, the vast majority of the reported incentive systems were quota-based.

About Piece-Rate Approaches

- Piece-rate approaches also increase task utility and perceptions of control; however, in a piece-rate program, goals are not assigned.
- Research indicates that without assignment, most people select more easily obtained goals.

About Tournament Approaches

People may perceive competitive incentives as less fair than piece-rate or quota plans. Since all teams that compete may exceed targets, the payoff for effort in tournament approaches may be perceived as less reliable and valid (people have much less control over the tournament outcome, no matter what their performance level was).

Tangible Incentive Award Types

The type of award used in incentive programs is always enmeshed in a net of variables that affect performance outcomes in an interactive way. Length of the program, actual and perceived value of the award, complexity of the desired performance change and effectiveness of program implementation are among the variables that interact with award type, making it difficult to isolate the effect of that single variable.

Without controlling for these other variables, this research found that monetary incentives produced a 27 percent overall increase in performance while non-cash incentives yielded an average of 13 percent higher performance.

Note: None of the studies dealt with issues of perceived value of non-cash tangible incentives or dollar equivalency. Non-monetary tangible incentives (that are less costly) may actually have a greater impact than the studies identified -- especially where incentive recipients participate in the incentive selection process. It is hypothesized that many of the gift programs are poorly implemented and managed. More research is needed here with regard to perceptions, equivalency, and impact.

Program Duration

The longer the incentive program' s duration, the greater the impact:

- Short-term programs of one week or less yielded a 20% performance increase.
- Six-month (or fewer) programs yielded an average 29% increase.
- Programs extending beyond one year produced an average 44% gain.

5 Conditions Where Incentive Programs Work Best

Five conditions indicate a need and environment where incentive programs work best:

1. Current performance on specific work goals is inadequate.
2. The cause of the inadequate performance is motivational (rather than due only to a lack of knowledge and skill or to environmental barriers).
3. The desired performance type and level can be quantified (how much, how often, how many).
4. The goal is challenging yet achievable (easy goals are not appropriate).
5. The organization requires that all other performance goals continue to be achieved at or above current levels.

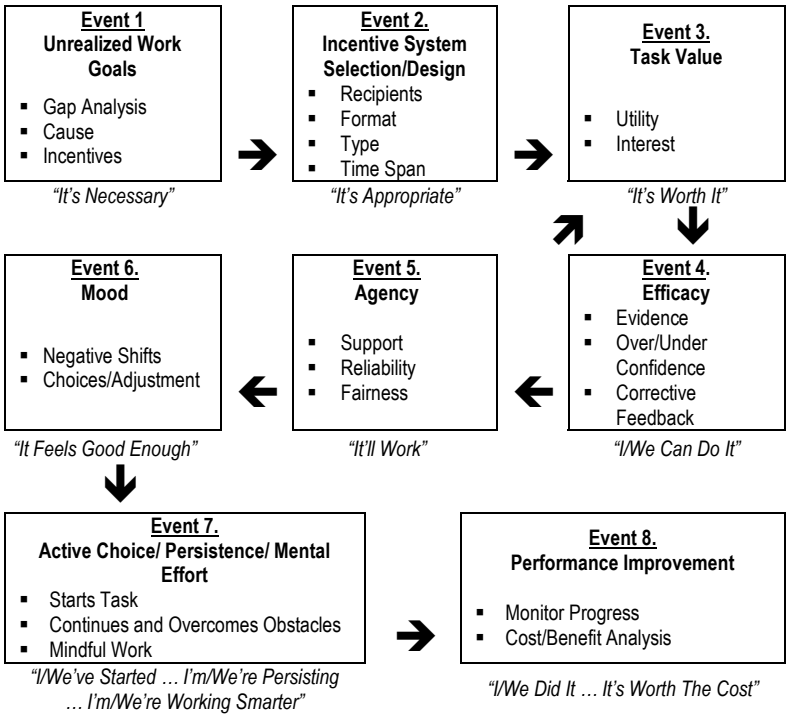
Implementation Issues

The survey of organizations using incentive programs indicates that incentive programs are highly valued by both employees and management (99% of all survey respondents). In spite of these high marks, the programs were implemented in ways that resulted in complaints by 98% of survey respondents. Clearly, the impact of an incentive program depends to a large degree on successful performance analysis and reliable, fair implementation and management strategies.

Note: While cost-benefit studies were actually rare, the organizations surveyed indicated significant return on investment from the incentive programs that they implemented.

The PIBI Model

An eight-event "Performance Improvement By Incentives (PIBI) Model" offers a process by which incentives influence performance:



How The PIBI Model Works

The PIBI Model is a diagnostic and prescriptive tool for incentive program selection and implementation that:

- Identifies the areas of importance and relevance.
- Provides guidance on the step-by-step procedures of implementation.
- Allows decision makers to troubleshoot and correct the system if it is not yielding desired results.

For readers interested in learning more about the PIBI Model, details are provided later in this report.

Value of Tangible Incentives

Introduction

This section covers key theoretical differences that have existed for years about the value of tangible incentives, including program types, awards, and more. Given the meta-analysis and survey activities that preceded development of this report, you will find definitive answers to key questions about tangible incentives that are supported by research review of all available, well-documented motivational studies.

IN THIS SECTION …

- What are the key issues surrounding incentive program design and selection?
- What value do tangible incentives offer organizations – given meta-analysis and field research findings?

Theoretical Differences

It is ironic that after a century of experiments and speculation, issues remain about the impact and value of tangible incentives.

Disputes About A Loss Of Interest In Work

Deci (1971, 1972), Lepper, Greene, & Nisbett, (1973), claim that giving tangible incentives destroys personal interest in work; that once you pay people for performance, personal (intrinsic) interest in work tasks are reduced, creating a "money grubbing" mentality. This group also claims that tangible incentives cause people to focus on tasks where they receive incentives, thus ignoring other, equally important tasks.

In contrast, Eisenberger & Cameron (1996), Eisenberger, Rhoades, & Cameron (1999), state that properly-designed incentive systems are consistently successful, and provide evidence that when salary or other

incentives are not working, properly-designed prize and money incentive programs can dramatically increase performance without sacrificing personal, intrinsic interest in work. They also claim that personal interest and value for work increases with tangible incentives.

Value of Exceeding Work Targets

There is solid evidence that paying people for exceeding work targets causes people to:

- Value work tasks more.
- Have more self-confidence and esteem for their employers.
- Be more persistent at work tasks.
- Strive for higher levels of accomplishment – and thus an even greater overall interest in work.

Reasons For Conflicts In Perceived Value

Many organizations implement tangible incentive systems without studying the performance problems they are intended to solve, or the conditions that make incentive systems effective. An excellent incentive system that succeeded in one organization may be inappropriate for another organization. When managers encounter conflicting advice from colleagues, they tend to follow the advice given by people who report success.

Note: The PIBI Model provides a methodology for designing an appropriate incentive program strategy.

Do Incentives Increase Work Performance?

Both experimental and survey research answer this question with a definite and unambiguous "yes." Based upon the findings, tangible incentives in the form of money or awards increase performance an average of 22%.

Impact Variance According To Work Tasks Being Targeted

Incentives work to varying degrees depending on what is being targeted. For example, the meta-analysis and field surveys provide evidence for the following.

- Incentives are least helpful when organizations are attempting to get people to do something new that they have never done before (a 15% performance increase).
- Incentives are more effective at encouraging people to persist at more familiar tasks (a 27% performance increase).
- Incentives are effective in encouraging people to invest their best "mental effort" at tasks (a 26% performance increase).

Note: Based upon research findings, it appears that implementation errors were committed, reducing the perceived effectiveness of incentives. For that reason, the real impact of incentives may be much higher -- particularly when attempting to encourage people to do something new.

Why The Reduced Impact On New Work Goals?

New Work Goals Require Adequate Knowledge and Skills

Novel work goals may require new knowledge and skills that might be lacking. The incentive system may have worked to motivate people, but the new goal could not be achieved without training and coaching, because an unfamiliar task was being incentivized. In cases such as these, incentives to acquire knowledge and skills to perform the new task have proven effective.

Impact Of Incentives On Interest

Interest Increases In Well-Designed Programs

There is overwhelming evidence that tangible incentives do not destroy interest or enthusiasm for work tasks. In fact, research suggests that incentives actually increase interest and enthusiasm for work (see Eisenberger & Cameron, 1998, for the best discussion of this issue).

For example, in the incentive system survey …

- 72% of targeted recipients expressed very high satisfaction with the rewards.

- Only 8% stated that they would have reached the objectives without the incentives.
- In only 6% of cases was recognition viewed as more important than tangible incentives.

Quality And/Or Quantity Performance Effects

Quality vs. Quantity Show Equal Affects

Research shows that incentives seem to influence quality and quantity work goals fairly equally. When studies seeking an increase in quality accomplishments are compared with studies seeking an increase in quantity of accomplishments, no significant differences are found.

Quality Requires Measurement

A work goal such as to "increase the quality of performance" requires that the specific types of quality sought are quantifiable in order to be accurately measured. Based on this study's findings, whether organizations wanted more work or better work, or both, incentives had a positive and equal effect.

Individual And/Or Team Performance Effects

Value Of Individual Vs. Team-Based Awards

Some studies contrast the different impact of incentive programs focused on individuals and those focused on teams or groups.

- Incentive programs that target individuals resulted in a 27% increase in performance.
- Incentives directed to teams increased performance by 45%.

Why The Difference In Team Vs. Individual Performance?

The Culprit: Social Loafing

The reason is suspected to be caused by a team phenomenon known as "social loafing" (Karu and Williams, 1995). When individuals work in teams, they tend to invest less effort than they do when working alone. Although individuals can still "loaf" in social work, they normally do so only when not being assessed, monitored, or receiving feedback from their teams.

Greater Performance Feedback Provided By Teams

When offering incentives for team performance, performance feedback from individual team members tends to reduce or even eliminate social loafing. In the absence of organizational scrutiny, the team may informally give corrective feedback to members who are not contributing their best efforts. This also diminishes social loafing and greatly increases team performance.

Hiring And Retention Effects

There are limited indications that tangible incentives programs increase the quality of workers attracted to organizations that provide them, and that retention of individual employees increases. (See Prendergast, 1999 and Guthrie, 2000).

Incentive system survey findings suggest that, as the size of an organization increases, positive effects on hiring and retention effects increase further.

There is also evidence that tangible incentive systems decrease team retention. This may be due to the possibility that the "individual assessment" impact of group incentives drives out under-performing team members.

What Kinds Of Incentive System Approaches Are Most Effective?

Bonner, Hastie, Sprinkle, and Young (2000) have classified incentive system schemes or formats into four categories:

- **Quota** -- Incentives are provided for meeting or exceeding a performance goal.
- **Piece-Rate** -- Incentives are provided for increasing units of performance such as producing more of something.
- **Tournament** -- Where individuals and teams compete and the winner receives an incentive.
- **Fixed-Rate** -- Where a fixed salary is paid for specified work.

Quota-Based Vs Piece-Rate Approaches

Bonner et al. (2000) provides evidence that quota schemes were the most effective, followed by piece-rate schemes. An unexpected result was that tournament incentive schemes were no more effective than fixed-rate (salary). Both were fairly ineffective. In addition …

- Piece-rate systems are significantly more effective than either tournament or fixed-rate, but not better than quota.
- Fixed-rate and tournament schemes are equally effective but significantly less effective than either quota or piece-rate schemes.

Root Causes Of Different Performance Results

Why would quota schemes lead to the greatest performance gains, followed by piece-rate schemes? Why would they produce significantly better results than either tournament or fixed-rate schemes? The answers require an understanding of the motivational variables that the four approaches either do or do not influence.

Quota Approaches Increase Task Utility & Control

Current motivation research and theory (for example, Ford, 1992; Bandura, 1997; and Clark 1999) provide some evidence that quota schemes serve to increase task utility (the incentivized task is worth the while of the employee because s/he can earn more than base salary by performing the task). Quota approaches also increase the employee's perception of control; that is, employees can decide for themselves to exceed the performance target.

Additionally, as Locke (1968) has written, assigned goals that are both specific and challenging lead to performance gains greater than those realized when goals that are vague or easy. Thus, **quota approaches maximize the affect of motivational variables on worker performance**. In the survey of organizations using incentive systems conducted for this study, the vast majority of the reported incentive system formats were quota-based.

Goal Assignment Value On Various Approaches

Piece-rate schemes also increase task utility and perceptions of control; however, in piece-rate approaches, the goals are not assigned.

Research indicates that without assignment, most people select more easily obtained goals. These easier-to-obtain goals manage to maintain (or even increase) self-esteem, but they do not translate into increased effort, and thus do not improve performance to the extent of quota approaches.

Tournament Approaches Lack The Control Variable

One interesting finding about types of incentive approaches is the lack of impact of competition or tournaments in awarding incentives. It may be that people perceive competitive incentives as less fair than piece-rate or quota plans. Since all teams that compete may exceed targets, the payoff for effort in tournament schemes may be perceived as less reliable and valid (people have much less control over the tournament outcome, no matter what their performance level was). In addition, there was evidence in a number of reports that competing teams occasionally sabotage each other's work to gain an advantage. This destructive behavior can reduce the enthusiasm for competitive awards for all but the most competitive people.

The table below summarizes the differences among the four types of incentive approaches, and provides insights as to why they lead to different levels of performance improvement.

Table 1-- Comparison Of Incentive Schemes

	Quota	Piece-Rate	Tournament	Fixed-Rate
Utility	Increased	Increased	Increased	Not Affected
Control	Increased	Increased	Not Increased	Not Increased
Goal	Assigned	Self-Set	Mixed	None

Utility Value of Gifts Vs. Money

Overall, monetary incentives produce a 27% increase in performance while gift incentives produce a 13% increase. The reason for this difference may be that money has universal value, whereas any specific set of gifts may not be valued equally by everyone who participates in the program.

For example, a $50 bonus check can be converted into cash and be spent anywhere and for anything; however, a $50 dinner coupon can only be spent at the issuing restaurant. While on the surface, money could appear to have the highest utility value of any kind of incentive, this topic requires more research to fully understand all of the factors involved.

Long-Term And Short-Term Incentive Programs

Greater Program Length = Greater Performance Attainment

The longer an incentive program's duration, the more powerful is its value to bring about performance improvement. For example:

- Short-term incentives (one week or less) produced a 20% increase in performance.
- Six-month programs yielded a 30% increase.
- Programs extending beyond a year demonstrated a dramatic 44% performance gain.

What Organizational Conditions Indicate A Need For An Incentive System?

Five conditions indicate the need and environment where tangible incentives will work best:

1. The goal can be quantified.
2. The goal is challenging but achievable (impossible "stretch" goals defeat the purpose of incentive systems).
3. All other work goals must continue to be achieved at or above current levels.
4. Current performance on work goal(s) is inadequate without incentives.
5. The cause of the inadequate performance is motivational (a failure to actively work to achieve the goal or people are not achieving enough of the goal -- they are distracted by other goals or resisting a work goal).

Knowledge and Skill As Defining Conditions of Success

The last point above was the finding in 84% of the survey cases. Incentive use should be avoided if performance problems are caused only by a lack of knowledge and skill and/or organizational barriers. In such cases, incentives could be used to motivate employees to obtain the necessary knowledge and skills. But, under current circumstances, incentives could not motivate employees to perform better if they lacked the required knowledge and skills, or if they faced organizational or other environmental barriers.

The Performance Improvement By Incentives (PIBI) Model

Introduction

An eight-event "Performance Improvement By Incentives (PIBI) Model" offers a process by which incentives influence performance. The process steps, referred to as "Events," provide guidance for incentive program selection and implementation.

IN THIS SECTION …

- What is the PIBI Model?
- How can it be used to guide the process of incentive program selection and implementation?
- What are the specific process steps within the PIBI Model?

Basis For The PIBI Model – The CANE Model

There are various "partial models" of work motivation -- Ford (1992) lists over 30 current theories and models of work motivation. Most of these research-based motivational models represent some, but not all, motivational processes that support work.

Goal commitment and mental effort are key motivational issues in most work settings. The CANE (Commitment And Necessary Effort) Model is the basis for the PIBI Model, which is an expanded incentive implementation approach. (For information on why the CANE Model was selected, please refer to the Appendix.)

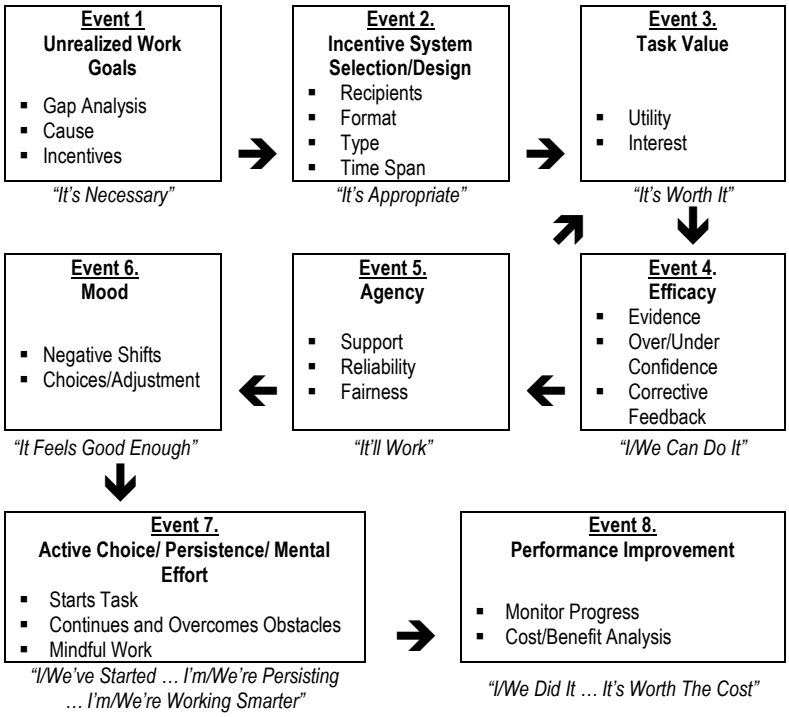
Overview Of The PIBI Model

The PIBI model is both a diagnostic and prescriptive tool for incentive system selection and implementation. Using this model, incentive program managers have a tool that will help to:

- Identify areas of importance and relevance.
- Provide guidance on the step-by-step procedures of implementation.
- Trouble-shoot and correct the system if it is not yielding desired results.

As a note, the PIBI model seeks to identify and describe only those elements that are *universally* relevant to the introduction and implementation of incentive systems. According to the model, that form of incentive with the greatest value (or utility) will ultimately lead to the greatest performance gains.

The Performance Improvement By Incentives (PIBI) Model



Event 1: Unrealized Work Goals

Most of the problems with current incentive systems are caused by insufficient front-end analysis. The first activity is therefore a gap analysis to assess variations between organizational goals and current performance. If a gap analysis indicates that people know how to achieve a goal (but are avoiding it) an incentive system can be a powerful solution.

Unrealized work goals are caused by three factors. These include work goal avoidance, unclear or unchallenging goals, and goals that lack specificity. These three factors are covered next.

Work Goal Avoidance

Avoiding work goals takes different forms. In some organizations, it means that people are not working consistently, or are allowing themselves to be distracted by less important work goals and/or are not managing their time adequately. In other organizations, people may be arguing about whether the desired but ignored work goal is important. In other cases, people work to give the impression that they are pursuing a goal when, in fact, they are not.

Clear and Challenging Goals = Success

Work goals must be clear and challenging:

- Goals that are challenging lead to greater performance gains than do goals that are overly easy or impossible "stretch" goals.
- Easy goals do not enlist the full spectrum of an employee's motivational and skilled resources.

Nonspecific Goals

Goals assigned to people lead to better results if they are specific and challenging. In addition:

- Specific, concrete goals help people understand what and how much they are asked to do, and whether they are making progress toward successful completion of the goal.

- Very general "do it" and/or "do your best at it" goals have no metric attached to them, and thus, leave employees guessing whether they met company objectives.
- Impossible stretch goals may be out of reach no matter what the employee does, and thus is dismissed as impossible and not worth the employee's time.

Assigned Vs. Collaboratively Set Goals*:*

Locke and Latham's (1990) studies provide evidence that employees do not have to participate in work goal setting in order to make a strong commitment to assigned work goals. In cases where participatory goal setting is not possible, they find that value for the goal is enhanced if, in addition to incentives, people perceive the goal to:

1) Be assigned by a legitimate, trusted authority with an "inspiring vision" that reflects a "convincing rationale" for the goal, and who …
2) Provides expectation of outstanding performance and who gives …
3) "Ownership" to individuals and teams for specific tasks; and …
4) Expresses confidence in individual and team capabilities; while …
5) Providing feedback on progress that includes recognition for success and supportive but corrective suggestions for mistakes.

Event 2: Incentive System Selection/Design

Once management has decided on a goal and has determined that the introduction of an incentive system is warranted, the next issue is the nature of the chosen incentive system. Specific questions asked here include:

- What types of incentive systems are available for implementation?
- What criteria should be used to select the best system for a specific set of performance needs?
- How should the incentive be earned?
- What kind of incentive should be offered?
- How long should the program run?

What Types Of Incentive Approaches Should Be Selected?

The research suggests that, in general, tangible incentives – as long as they are properly chosen, carefully implemented, and paid over a long period of time in a quota system -- yield the greatest performance gains.

- Quota approaches pay people for exceeding current levels of performance (or a pre-set base that may be a bit higher than current performance levels).
- In most quota system formats, the more that people exceed a pre-set level, the more incentive they receive.
- If a quota scheme is not possible, the next most desirable choice is piece-rate – where incentives are provided for increasing units of performance such as producing more of something.
- Piece-rate approaches are significantly less effective than quota schemes, but still much more effective than tournament or fixed-rate approaches.

Money, Gift, Or Recognition Incentives?

(More research is needed)

The meta-analysis findings show that the incentive plans with monetary incentives had greater performance gains (27% for money vs. 13% for gifts). It should be noted that none of the studies dealt with issues of perceived value of non-cash tangible incentives or dollar equivalency. Non-monetary tangible incentives (that are less costly) may actually have a greater impact than the studies identified -- especially where incentive recipients participate in the incentive selection process. It is hypothesized that many of the gift programs are poorly implemented and managed. More research is needed here with regard to perceptions, equivalency, and impact.

A Special Note About Recognition

Recognition as a subject was not included in the meta-analysis, because no research experiments offered usable data on recognition. Even so, recognition, such as "employee of the month," service awards, mention in the company newsletter, etc., are normally the least expensive form of incentive, and often free.

Survey findings revealed that recognition is a component in 26% of the incentive systems reported; however, employees generally consider them the least worthy of their time (Chonko, Tanner & Weeks, 1992). Nevertheless, job satisfaction is partially dependent on recognition (Chung, 1972), and sales force control systems (which are behavior-based) require sales staff to be recognition-motivated (Cravens, Ingram, LaForge, & Young, 1993). Thus, while recognition incentives *in and of themselves* do not appear to lead to great gains in performance, when coupled with monetary or gift incentives they may serve to significantly boost performance levels. In addition, they may offer future value for the employee being recognized.

Short-Term Or Longer-Term Incentive Programs?

The longer the incentive program, the greater the results. Performance gains shown through the meta-analysis and field surveys were:

- For programs extending beyond one year → 44%
- For programs from one to six months → 29%
- For programs lasting a week or less → 20%

Reasons For Performance Differences

- Long-term programs allow more time to troubleshoot the program to ensure fairness, etc.
- In long-term programs, employees who initially did not choose to participate have more time to be "won over" – to be convinced after seeing fellow employees succeed.
- In long-term programs, many employees may have adjusted to the greater demands of incentivized work and thus were able to maintain higher levels of performance without undue effort.

What Is The Value Of People Selecting Their Own Incentives?

There is evidence that employee participation in the design of incentive systems leads to greater performance gains than would be realized if the incentive systems are simply assigned to employees.

Cultural Differences

In organizations having national cultures (i.e., US, Canada, and others that applaud individual initiative), employee involvement in incentive system selection and design may be beneficial. In work cultures where employees prefer strong leadership from management, such participation is less beneficial – because it is "management's job" to know and understand the general work culture expectations of its employees.

Cost-Benefit Analysis

A cost-benefit analysis is useful in determining the financial impact of each type of incentive system.

For Quota or Piece-Rate Approaches

If a quota or piece-rate system is used, there must be accurate and sometimes extensive accounting procedures. This involves the cost of counting or measuring performance accurately to determine who has earned how much of an incentive bonus.

For Tournament Approaches

Tournament approaches probably are the least expensive approach, because not everyone can win; however, tournament approaches do not (based upon the research) lead to performance gains. Thus, even though they cost less, when used alone, they may offer reduced benefits in the long run.

For Fixed-Rate Approaches

Fixed-rate approaches are known to cost more to implement than other approaches, and provide the weakest motivation to improve performance.

For The Type of Incentive Offered

It is quite possible to spend less on gift incentives than to pay employees a bonus based on exceeding a quota. Please note that the cost-benefit of various award types could not be determined by this research.

Event 3: Establish Task Value

Most people perform their own cost-benefit analysis on all new task requirements: In order for the incentives to be effective, the incentive must be appealing and more than make up for working longer, harder, or smarter.

Eccles and Wigfield (1995) have stated compelling evidence for the impact of three types of control values: Utility Value, Interest Value, and Skill or Importance Value, described next.

Utility Value

Money and gifts are universal in their appeal to people from different cultures and diverse types of work organizations. Utility value seems to increase when additional money or other forms of tangible incentive are offered for additional commitment to a work goal. If the achievement of the goal is not, by itself, valuable to individuals or teams, money and gifts serve as "utility" value for a stronger commitment to less interesting goals.

Interest Value

Interest Value (also known as "intrinsic motivation") is the enjoyment or curiosity people experience when performing tasks that have subjective interest for them. Given that one is already being motivated "intrinsically," tasks that have a high level of interest value do not require incentives in order to be accomplished.

Skill Or Importance Value

Skill or Importance Value is the person's perception of how significant the task is to him/her. People tend to value work more when the successful completion of work goals requires their strongest skills.

Event 4: Efficacy

Once a particular incentive is perceived as having adequate utility value, people focus on their abilities to perform the incentivized task. They analyze the demands of the task to determine whether their knowledge and skills are up to performing the task. They ask, "Can I do it?"

The more that we believe we might be able and that we will receive the minimum support required to achieve a goal, the more likely we are to choose and commit ourselves to the goal. The "Can I do it?" question engages our memory about our ability and prior experience with similar goals.

Self-Efficacy

Since self-efficacy concerns beliefs about one's personal capabilities, it is unlikely that incentives influence people's self-efficacy early in the goal pursuit process. It is more likely that efficacy increases after work goals are achieved -- because people realize that they can achieve a very challenging goal through persistence. This "post hoc" increase in efficacy might then transfer to new work goals.

Team-Efficacy

"Collective -" or "team -" efficacy (Bandura, 1997) also exists in many organizations where individual contributions to collectively developed products are difficult to capture and measure. Sometimes it is wiser to offer incentives to teams or groups rather than to individuals. In such a team situation, team members will not only survey their own efficacy levels, but also the team's. They will ascertain the level of competence the *team* has relative to the incentivized task. Lower levels of team-efficacy translate into lower performance gains. Honeywell, Dickinson, and Poling (1997) have determined that:

- Individuals who normally perform at a low level prefer group incentives, because it allows them to hide their inadequacies and benefit from the expertise of high performers.
- High performers prefer individual incentives, presumably, because they want the full benefit or reward of their excellent work.

Event 5: Agency

"Agency" has to do with our beliefs about whether the organization will adequately support our goal performance and/or provide the incentives promised in a fair way. People who believe that they are capable of achieving a work goal (that is, who have high self-efficacy) might not believe that the organization will provide the support structures or procedures necessary, or will otherwise act in unfair ways, thus defeating their best efforts to achieve work goals.

Agency is a very powerful force in the success or failure of incentive systems. In fact, although over 90% of survey respondents liked the incentive systems of their particular organizations, almost an equal number took issue with the way the systems were implemented or managed. Confidence in an organization's *handling or management* of the incentive program is very important. Supervision, accounting, bookkeeping, timeliness of disbursement of incentive rewards, accuracy and fairness in feedback and monitoring, training, and work reengineering (when necessary) are important factors in success.

Three Types Of Agency Strategies

Three types of agency interventions include:

- **For people who have the drive but not the ability** to achieve the incentivized work goals → Mastery oriented training.
- **For under-confident people** → Enlist the employee's co-workers and managers to provide frequent positive feedback.
- **For people having cultural origins that are different from the majority of employees** → Provide "coping models" (other people who are perceived to be from similar backgrounds and who can offer support).

Additional Support Areas

Ford (1992) suggests three interventions that help foster a positive view of the context where a task is to be performed:

1. The context must be perceived as supportive of the goal in its physical layout such as appropriate tools, materials, distracting noise, heat, and space.
2. The environment must offer a supportive social climate that includes fairness, trust, encouragement, and social support. Included in this social element of context is the chance for "ownership" of the results of goal attainment.
3. The context must offer a high probability of policy and work process support (and a lack of organizational or managerial barriers) to goal achievement.

Event 6: Mood

The current emotional state (mood) of an individual or team greatly influences commitment to a work task. Strong negative emotions are enough to kill work motivation. Incentives, when they are carefully selected, highly valued by people who believe that the organization will give the support necessary to achieve an incentivized work goal, are hypothesized to significantly increase people's positive emotion.

It is also likely that incentivized work goals, effectively implemented, can blunt the effects of negative emotions caused by past events that people might resent. Commitment to a high level of performance is necessary before the high performance can be achieved. Moods affect how committed we are.

Negative Moods -- Characterized as sadness, fear, depression, and anger (Ford, 1992). These negative mood states inhibit commitment (Bower, 1995).
Positive Moods -- Positive emotions foster commitment (Bower, 1995; Ford, 1992).

Event 7: Active Choice, Persistence and Mental Effort

Once an effective incentive system is selected, designed, and implemented, the PIBI Model specifies the sequence of events that lead incentivized individuals and teams to improve their performance. There are three different kinds of motivational outcomes (Clark, 1999) that should be measured to determine the impact and effectiveness of the incentive system.

Active Choice – People have actively started to do something they resisted doing before the incentive system was put in place or choose to initiate activity for something new.

Commitment or Persistence -- People are doing more or better of what is desired after the incentive system was put into place than they were doing before it began.

Mental Effort -- People are being "mindful" and are working smarter by doing more novel and/or innovative work on the incentivized goal.

Event 8: Performance Improvement

At this event, we must ask whether increased active choice, persistence, and mental effort have closed the performance gap and achieved the desired work goal(s). If the desired levels of choice, persistence, and mental effort have been achieved, but the gap is not closed, then the initial gap analysis was faulty. If motivated performance closed the gap, we must determine the cost-benefit of the entire program. If the benefits exceed the cost or add value, the incentive program was successful.

Appendix

Research Methodology

Four central questions guided this study:

1. Do incentives increase work performance?
2. What kinds of incentive systems are most effective?
3. What organizational conditions indicate a need for an incentive system?
4. What model best expresses the events that occur during the selection and implementation of successful incentive programs?

To answer these and other questions, the research team designed the following approach.

Research Study Screening

Reviewed all current English language research literature on incentives published in peer-refereed journals. Of the 600 studies reviewed, 45 passed rigorous screening.

Meta-Analysis

Determined the trends in conflicting studies using "meta-analysis" – a relatively new statistical procedure allowing the researcher to summarize the results of many different experiments conducted on a single topic by different researchers at different points in time.

Survey

The research team surveyed a large sample of U.S. organizations using incentive systems through an on-line, in-depth questionnaire; follow up included a detailed, structured telephone interview. The screening process began with 1,000 organizations, producing 400 qualified respondents. One-hundred-and-forty-five survey forms were completed – a 37% response rate.

CANE Model as Basis For The PIBI Model Presented In This Report

Background Information On The CANE Model

Developed by Clark (1999) following Ford (1992) and Bandura (1977), the CANE model was used to structure the meta-analysis and to organize this review of the research literature.

The model presented here derives, in part, from an analysis of motivation research by Pintrich & Schunk (1996) from the Motivational Systems Theory (MST) proposed by Martin Ford (1992) and from recent work on cognitive effort by Bandura (1997), Salomon (1984), and Clark (1999) among others.

Pintrich and Schunk (1996) have suggested that our diverse body of motivation research tends to focus on a number of "indexes" or outcomes. These indexes are the problems that motivation researchers are attempting to understand and solve. Examples of these outcomes are goal choice (the passive and active selection of work goals), commitment (persistence at a work goal over time in the face of distractions), mental effort (employing conscious, non-automatic cognitive strategies to facilitate goal achievement) and performance (measures of goal or task success). All of these indexes have, at one time or another, been used to define motivation at work, and to define the variables examined in motivation research.

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