

WORK MOTIVATION AND PRODUCTIVITY OF GOVERNMENT WORKERS

Amaryllis Tiglao-Torres
University of the Philippines

This research attempted to determine what factors contributed most towards the work motivations, work satisfactions, and productivity of government workers. Data was collected from workers in 11 government agencies. The results showed that both intrinsic and extrinsic motives served as important motivating factors and work productivity can be increased by focusing on both sets of factors.

A nation's progress is substantially measured by the productivity of its economy. The volume and variety of goods and services manufactured and exchanged marks the economic development of a nation. Thus, the development of the Philippines in the next few years may aptly be gauged by the extent to which our agriculture and industry are able to produce sufficient commodities for our own needs and for trade with other countries of the world.

Productivity measures assist development planners in determining the pace of economic growth. In general, productivity is a measure of how well resources are utilized to produce goods and services (Aganon, M. & S. Amante, 1988). While there are a variety of productivity measures appropriate to different levels of analysis, the ultimate measure is the extent to which the human resource applies him/herself to work, in order to produce a particular commodity or service. A compendium of studies on human factors related to productivity indicates that job motivation and work suitability significantly influence work performance and productivity (Cavilan-Buen, 1979; De Jesus & Teodoro, 1983; De Jesus, 1985; Peralta, 1985—cited by Mendoza, A., 1988).

Work motivation has been defined as "the conditions which influence the arousal, direction and maintenance of behaviors relevant in work settings" (McCormick, E. & D. Ilgen, 1980). The behaviors influenced by motivation are those

which are related to work productivity, and include: turnover, absenteeism and individual performance.

Study of Human Factors in Government Productivity

Often, productivity studies are conducted in the private sector, which is expected to contribute most substantially to economic progress. Nevertheless, the life of our nation—including that of private enterprise—is inextricably linked to the work of the administrative machinery of government, which is entrusted with planning, policy-making and regulatory functions over the resources of the state. Hence, the productivity of enterprise is affected by the extent to which government is able to respond to the needs of the public through maximum use of scarce resources, without waste and bureaucratic inefficiency, and within the work ethic of public accountability (Torres, 1989).

Towards this end, the Government Productivity Improvement Program (GPIP) was initiated in 1987. Implicit in its objectives is the intention to develop attitudes and behaviors among government employees supportive of productivity goals, especially among frontline employees engaged in daily transactions with the public. As part of the GPIP's activities in 1988, a research on "Human Factors: Their Impact on Government Productivity" was undertaken. More specifically, it was the purpose of the study to identify factors in the person and in the organization which affect individual performance (as the measure of productivity). The findings

*This paper draws from the results of a research project entitled "Human Factors: Their Impact on Government Productivity," which the author undertook for the Government Productivity Improvement Program (GPIP) through the Productivity Development Center, Development Academy of the Philippines, July 1988–March 1989.

presented in this paper are drawn from the results of that study.

A. Study Sample

A Pilot Survey of Government Productivity was conducted in eleven government agencies within Metro Manila with licensing and regulatory functions. These agencies were purposively selected with the following criteria in mind:

1. The agencies have sections which fulfill frontline functions, and
2. The services offered to the public represent a wide range of needs: including health promotion, regulation of business and transportation, and resource conservation.

Six (6) of the selected units are line agencies of government offices and departments located in the metropolis, while five (5) are offices under two local governments within Metro Manila. For ethical reasons, the identities of these offices must remain confidential.

The final sampling units include the following:

1. 150 frontline government workers, or 15 per office;
2. 43 immediate supervisors, rating each of the workers under their supervision, thus generating 150 ratings; and
3. 50 clients.

B. Data Collection

Four survey questionnaires were devised for the Pilot Survey. Two were administered among the frontliners and were meant to obtain information on the different sets of variables under consideration; a third was used to obtain performance ratings of workers by supervisors, and the last was used to elicit client ratings. Data gathering was completed within a period of eight days, using 10 interviewers and two field supervisors.

C. Brief Profile of the Respondents

The employees in the survey may aptly be described as relatively young (average age is 32), mostly female, and married. These

workers are highly qualified: practically all have completed college, and some have moved on to post-graduate courses. About 90% of them have civil service eligibilities. At the time of the interviews, these frontliners had been in their current positions for an average of five years.

Ambitiousness and assertiveness characterize the personality of these workers. A majority also have positive work values, and subscribe to the statement that "It is the duty and responsibility of every self-respecting individual to work well, regardless the type of work."

The employees were generally satisfied with management practices. In particular, supervision, work planning and the scheduling of outputs were rated positively. Supervisors were perceived to be communicative, and they were consulted on both official and personal matters.

The median salary of these employees in September 1988 was P2,127, including the cost-of-living allowance. Half have never been promoted. Among the rest, the promotion was given at least 2 years earlier. Not all workers have received on-job training either. Of the 66% who have undergone training, the majority did so before 1986. Despite these difficulties, the employees felt relatively satisfied with their compensation and benefits. They believe that their promotional chances and salaries are fairly comparable with other employees in government agencies doing similar jobs. Only 15% would like to leave their present work in the near future to engage in business, while 9% desire to obtain employment abroad.

D. Work Motivators

Among the psychological characteristics of the frontline employees included in the inquiry were their work motivations. Since the purpose of this presentation is to illustrate what these work motives are, a more extensive discussion of these variables now follows. Then, the extent to which they influence

measures of individual performance will be discussed.

1. Identifying Potential Work Motivators

To determine what factors government frontline workers consider as important incentives in their work, they were asked to rank ten different potential motivators from most to least important. The average ranks obtained by these motivators (where 1 = lowest rank & 10 = highest rank) may be seen in Table 1.

Table 1. Ranking in Importance of Work Motivators

Motivator	Importance (ave.)
Personal sense of achievement	7.09
Opportunities for growth & promotion	6.26
Relationship with co-workers	6.13
Physical work setting/environment	5.79
Management styles and practices	5.79
Type/nature of work	5.71
Agency prestige	4.96
Style of immediate supervisor	4.90
Recognition rewards	4.23
Financial rewards	4.19

The rankings illustrate that frontliners consider personal goals to be of greater importance as incentives for work than qualities of the work setting. When the obtained information is further analyzed, four clusters of motivators emerge (as determined by Duncan's Multiple Range Test). These clusters may be ranked as follows, using statistically significant mean differences:

- a. Ego incentives (personal sense of achievement)
- b. Work conditions as motivators (opportunities for growth in agency; interpersonal relations; physical setting; nature of work; management style)
- c. Organizational image and administration (agency image/prestige; supervisory style)
- d. Extrinsic rewards (financial rewards; recognition rewards)

2. Satisfaction with Motivators

The extent to which motives were actually being satisfied in their respective occupations

was also determined. First, the employees were asked to rate on a 5-point scale the extent to which they were satisfied with these conditions in their present employments. Then, satisfaction of the individual for each of the motivators was measured by multiplying the importance and satisfaction ratings:

$$\text{Satisfaction Index} = \text{Importance (factor I)} \times \text{Satisfaction Rating of I}$$

Using this approach, the Index of Satisfaction for each of the 10 motivators was determined to be as follows, ranked from most to least satisfactory (highest possible score = 50).

Table 2 shows that workers who place importance on obtaining a sense of achievement from their work find their present employments moderately conducive to the fulfillment of this need. Those who value relationships with their co-workers, as well as certain other organizational properties, likewise find some satisfaction in this regard. In contrast, individuals who work for financial and recognition rewards find little satisfaction in these aspects of their present work.

Table 2. Satisfaction with Motivators in Workplace

Factor	Satisfaction Index
Personal sense of achievement	27.71
Relationship with co-workers	24.27
Type/nature of work	21.37
Opportunities for growth promotion	21.21
Management styles & practices	19.60
Physical setting of work	19.52
Agency prestige	19.47
Style of immediate supervisor	18.00
Recognition rewards	12.89
Financial rewards	10.63

$$\text{Satisfaction Index} = \text{Importance (factor I)} \times \text{Satisfaction Rating of I}$$

3. Factors Underlying Work Motivation

Further analysis of the variables which measure work motivation indicate extensive intercorrelations between them. First, all the workers' ratings of work conditions which are satisfying are highly intercorrelated. Secondly, the importance of financial incentives to

individuals is negatively correlated with ratings of satisfaction concerning management practices and with personal achievement. Thirdly, ratings of the work setting as important to workers is positively associated with ratings of two satisfiers: the ability to obtain a personal sense of achievement in the office, and satisfaction with the style of the immediate supervisor.

To clarify further the pattern of inter-relationships among them, factor analysis was applied on the motivator variables. The data-set for the analysis included (a) the ten ranked motivating conditions and (b) the ten ranked satisfying conditions at work.

Using factor analysis with orthogonal rotation, seven factors were identified as underlying the 20 motivator variables. The eigenvalues of these factors (the eigenvalue is a measure of the relative importance of a function) and the proportion of variance in the data accounted for by each are described in Table 3. According to the table, variables included in the seven isolated factors explain 66% of the total variance found in the data on work motivation. Of these factors, the first one accounts for a fourth of the variance, factor 2 accounts for about 10%, and so forth in diminishing order. Knowledge of the variables making up each of the factors will provide information concerning what cluster of motivating conditions are important to government frontline employees. The circle-graph represents these factors in relation to the totality of motivator variables rated by the government frontliners (Figure I).

Since they account for 66% of the variance in the set of work motivators, identifying these factors directly addresses the question of: "What conditions are considered by workers to be rewarding and motivating?"

Using the obtained rotated factors matrix, Table 4 summarizes the variables making up each motivator factor. Tentative labels for the factors are also proposed in the Table.

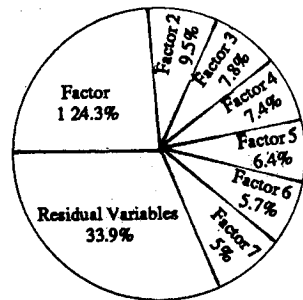
Table 4 stresses the importance of having generally favorable working conditions as a motivator to frontline employees of govern-

Table 3. Eigenvalues and Proportion of Variance Accounted for by Motivator Factors

Factor	Eigenvalue	% of Var	Cum %
1	4.85747	24.3	24.3
2	1.90269	9.5	33.8
3	1.55387	7.8	41.6
4	1.47492	7.4	48.9
5	1.27322	6.4	55.3
6	1.13320	5.7	61.0
7	1.00402	5.0	66.0

(The eigenvalue is a measure of the relative importance of a function. Variance is a measure of the dispersion of data around the mean of a variable.)

Figure I. Motivator factors in the set of motivating work conditions (using proportion of variances).



- Factor 1 (Working Conditions)
- Factor 2 (Rewards & Incentives)
- Factor 3 (Agency Image & Administration)
- Factor 4 (Nature & Setting of Work)
- Factor 5 (Relationship with Supervisor)
- Factor 6 (Organizational Advancement)
- Factor 7 (Relationship with Co-employees)
- Residual variables (other work motivators)

ment (Factor 1 accounts for 1/4 of total variance in the data-set on work motivation). When ranked in terms of their loadings on Factor 1, the important work condition variables include satisfaction with: (a) actual nature of work being done, (b) relationship with peers, (c) obtaining personal achievement, (d) agency prestige, (e) supervisory and (f) managerial styles, (g) the physical setting, and (h) opportunities for growth and promotion.

The second cluster of motivating conditions pertains to satisfaction with rewards and incentives in the workplace. Thus, while the

Table 4: Variables Constituting Motivators

Factor	Variables
1. favorable conditions of work	satisfaction with: <ul style="list-style-type: none"> • management style • type of work • personal sense of achievement • physical setting • opportunities for growth & promotion • style of immediate supervisor • prestige of agency • relationship with co-workers
2. rewards & incentives at work	satisfaction with: <ul style="list-style-type: none"> • financial rewards • recognition rewards • opportunities for growth & promotion
3. agency image & administration	importance of the prestige of the agency importance of style of immediate supervisor unimportance of financial & recognition rewards
4. nature and setting of work	importance of the type of work importance of the physical setting of work
5. relationship with supervisor	importance of style of immediate supervisor unimportance of obtaining personal sense of achievement
6. organizational advancement	importance of opportunities for growth and promotion unimportance of relationships with co-workers
7. relationship with co-employees	importance of relationships with co-workers unimportance of management style

frontliners do not consciously place importance on financial and recognition rewards as motivators (see Table 1). Factor analysis reveals that they consider these incentives as important job satisfiers.

The third factor pertains to the importance that workers place on the image and administration of their respective offices, contrasted with the unimportance of financial and recognition rewards. The public image of their government agencies apparently matters to the frontliners, as does the manner by

which they are supervised in their work by their superiors.

Work itself is a motivating condition, both in terms of what duties it entails as well as in terms of the physical setting within which work is accomplished (Factor 4). Corollary to this, Factor 6 illustrates the importance to employees of personal advancement in their work. In fact, the 'variable opportunities for growth and promotion' surfaces three times in this analysis: as a component of Factors 1, 2, and 6. It is, therefore, an important motivating condition in government work.

Factors 5 and 7 both pertain to the nature of relationships within the offices. While Factor 5 describes the importance of supervisory style to the frontline employees coupled with the unimportance of a sense of achievement, Factor 7 refers to the value they place on interpersonal relations with their co-employees, while considering management style inconsequential as a motivator. Human relations at work, therefore, is another important motivating condition in government offices, especially in terms of relationships within organic or functional units (workers and supervisors).

4. Other Motivating Conditions of Work

Other measures of work motivators were obtained from among the frontline workers. These included queries on desired conditions of work, such as the amount of cooperation and discipline they felt suitable for the job, as well as the quality of supervision, participation in planning and decision-making desired by the employees.

Three-fourths of the workers expressed a desire to have "more contact with others" in doing their jobs. They wanted this either "to be able to help" or "to be helped" by others. More than half (55.3%) also thought that the rules should be applied very strictly, while 44% said the rules and procedures should be applied with moderate strictness. Hence, the frontliners generally think that more interaction with both their co-workers and the public,

and adherence to rules and procedures, are positive aspects of the work situation.

The workers were asked to state what kind of management styles they preferred. Specifically, they were asked to choose between statements expressive of either participative or non-participative managerial approaches in relation to supervision, work planning, and decision-making. Participative management procedures appear to be the preference of the frontline workers. A great majority prefer to have close supervision over their work (75.3%). However, the same number would like to be directly involved in planning out their work (75.3%), and even more would prefer to be participants in decisions on matters concerning their work (87.3%).

E. Interpreting the Work Motivation of Government Employees

One of the most popular theories used to explain work motivation is Herzberg's Two-Factor Theory (1966). Briefly, the theory distinguishes between two sets of human needs: the need to avoid pain and the need towards self-realization. Mirroring these drives, according to Herzberg, are two sets of motivating conditions which he called hygiene and motivator factors. The first set serves to reduce pain, and as such cannot contribute to positive satisfaction but only to the avoidance of dissatisfaction. Such factors include drives related to one's personal life, working conditions, interpersonal relations with peers and supervisors, and concern for company policies. The second set, on the other hand, relates to the drive towards self-fulfillment and can only be achieved through the fulfillment of factors intrinsic to work itself: recognition, advancement, achievement, the nature of the job, and responsibility.

An updated version of the Two-Factor Theory is Myers' formulation of maintenance and motivation needs (Myers, 1964, in McCormick & Ilgen, 1980). In this theory, maintenance needs include concern for security, job orientation, work status, physical conditions, social relations, and economic con-

comitants of a job. Motivation needs, in turn, refer to desires for growth, achievement, responsibility, and recognition on-the-job. Like Herzberg, the Myers' hypothesis considers as motivators both those conditions which (1) are pertinent to a job itself (motivation needs), and (2) conditions surrounding a job (maintenance needs).

Factor analysis of motivator factors for government employees illustrates that these frontline workers are primarily concerned with satisfiers that touch both intrinsic and extrinsic qualities of work (see Table 4). In particular, the most significant factor has to do with being satisfied with working conditions—Factor 1—including opportunities for achievement and growth, and with the work itself, but also with conditions that bear on maintenance needs of workers. Similarly, Factor 2, which accounts for 10% of the variance, pertains to satisfaction with rewards and incentives on the job—not only in terms of economic needs but also in terms of growth needs. Of the five remaining motivator factors extracted from the data, two have to do with motivation needs while three relate to maintenance needs.

Clearly, therefore, government employees are motivated by both maintenance and motivation needs. The maintenance needs expressed most 'loudly' deal with social, economic, and physical requirements. In addition, opportunities for growth, recognition, achievement, responsibility, and the nature of work itself are motivating features of a job.

Stated differently, government employees are concerned with both hygiene and motivator elements of a job. In fact, the most significant motivator factor which emerges from the study defines work motivation in terms of experiencing satisfactory work qualities which are both intrinsic and extrinsic to work.

Against this backdrop, what is the relationship between work motivation and the performance of frontline government employees?

F. Productivity Profile

The productivity measures used in the research are of two general forms:

1. A five-point rating scale on which workers themselves and their supervisors indicated their level of satisfaction over the workers' performance along the following dimensions of work output: work volume, quality of completed work, job knowledge, industry, initiative, reliability, attendance, ability to learn, physical fitness, and quality of public relations. Selected clients were likewise asked to rate (in general) the performance of workers along some of these indicators;
2. A ten-point scale representing best-to-worst work performance on which the workers and their supervisors plotted the performance of the surveyed employees.

a. Performance Ratings on Ten Categories

On a scale with 50 as the maximum possible score, government workers gave themselves an average performance rating of 3.64 (Table 5). Super-

Table 5. Performance Index:
Average Ratings & (Standard Deviations)

FACTOR	WORKER	SUPERVISOR	CLIENT
job knowledge	3.44 (.66)	3.34 (.71)	3.03 (.82)
work quantity	3.56 (.70)	3.00 (.72)	2.63 (.82)
work quality	3.57 (.74)	3.30 (.71)	2.89 (.83)
industry	3.63 (.69)	3.29 (.77)	2.79 (.99)
initiative	3.64 (.75)	3.21 (.74)	—
reliability	3.74 (.76)	3.24 (.70)	—
attendance	3.68 (.85)	3.20 (.84)	2.74 (.95)
ability to learn	3.70 (.70)	3.35 (.695)	—
physical fitness	3.65 (.795)	3.31 (.72)	—
public relations	3.81 (.70)	3.39 (.80)	3.105 (.89)
Performance Index	3.64 (.55)	3.29 (.59)	2.86 (.71)

visory ratings, in turn, averaged 3.29 in their ratings of workers. Hence, both self-ratings and supervisory assessments of workers' performance are moderately favorable.

The performance factors on which frontline workers gave themselves the highest ratings are: public relations reliability and ability to learn. Those which were rated lowest by them include: job knowledge, work quantity, and work quality. In turn, the supervisors consider their workers to be best in the following aspects of performance: public relations, ability to learn, and physical fitness. They were rated lowest in the following: work quantity, attendance, and reliability.

b. Performance Ratings on the Worst-Best Scale

On the 10-point ideal-rating scale, employees gave themselves an average rating of 8.56, while supervisory ratings averaged 7.14. Moreover, no supervisor gave a 10 to any of the workers (Table 6), indicating that they considered none of the workers to have done "the best possible performance."

Table 6. Ratings of Performance
Against the "Best Performance"

Rating	Frontliners	Supervisors
1-4	—	—
3-5	3%	9%
6-7	28%	49%
8	36%	29%
9	21%	13%
10	11%	—

G. Motivation and Productivity

At the start of this paper, it was stated that work motivation has often been studied by psychologists in relation to their work performance. In this research, the possible associations between motives and performance were determined in two ways. The first was through bivariate analysis using chi-squares,

and the second was through multiple regression analysis of each of the seven Motivator-Factors on performance.

1. Tests of Association

The summary results of chi-square analysis are as follows:

- 1.1 Employee satisfaction with each of the following motivator-variables (Table 2) are positively associated with productivity using self-ratings: recognition rewards, type of work, personal sense of achievement, physical setting, style of supervisor, agency prestige, and relationship with co-workers. Similar findings were obtained on both the categorical scale and the ideal-state scale.
- 1.2 Higher self-ratings were also associated with worker satisfaction in relation to job responsibility, such as having democratic supervisors participating in work planning and in office decision-making efforts.
- 1.3 Supervisors also tended to give higher performance scores to employees who express satisfaction with job responsibilities emanating from managerial practices—including satisfaction with democratic supervision and participation in work planning and in decision-making.

2. Regression Analysis of Variables Comprising Work Motivators

Multiple regression analysis was accomplished for each of the motivator-factors earlier identified, in order to determine which motivator and which variable in each factor, predicts productivity. The variables comprising each of the 7 motivator factors are described in Table 4.

Among the motivators, only two regression equations proved to be significantly related to productivity.

2.1 Factor 1, representing Satisfactory Working Conditions, is a significant predictor of performance self-ratings using the categorical scale (Multiple $r = .348$, adj. r -square = $.071$, $F = 2.43$, $p = .02$). Of the 8 satisfier-variables which are included in this factor, satisfaction with attaining a 'personal sense of achievement' was found to be significantly related to the measure ($\beta = .3194$, $t = 2.89$, $p = .004$), indicating that it is the single most important predictor of performance in Factor 1.

2.2 Factor 2, Rewards and Incentives, was found to be a significant predictor of supervisory ratings of performance on the categorical scale (Multiple $r = .302$, adj. r -square = $.072$, $F = 4.896$, $p = .003$). All the incentive variables were found to be significant predictors of supervisory ratings: financial rewards ($\beta = .2509$, $t = 2.82$, $p = .005$), recognition rewards ($\beta = -.3125$, $t = -3.12$, $p = .002$) and opportunities for growth and promotion ($\beta = .1901$, $t = 2.03$, $p = .044$). In this equation, it is seen that supervisory ratings are predictable from the workers' feeling of satisfaction with financial rewards and growth incentives, as well as their dissatisfaction with recognition rewards.

H. The Relationship Between Work Motivation and Performance

These analyses tend to confirm the findings from the bivariate tests and earlier results. For instance, satisfaction with job motivators earlier surfaced as highly as-

sociated with self-ratings of performance; Factor 1 is made up of these same variables. Secondly, the finding that satisfaction with a 'personal sense of achievement' predicts productivity significantly is consistent with the fact that it is also deemed by employees to be the most important job motivator (see Table 1). Hence, government frontliners appear to be truly concerned with achievement goals in their work setting.

Finally, note that the 2 factors which turned out to be significantly related to productivity are also the ones which contribute the largest proportion of variance to the data-set on work motivation. This implies that the two concepts (work motivation and performance) are highly inter-related, and confirms the hypothesis that motivation and work behavior are associated factors.

The profile of important work motivators for government workers apparently conforms with the notions earlier expressed by Brown (1973). He said:

"Work is a social activity with the two main functions of producing the goods required by society and binding the individual

into the pattern of interrelationships from which society is built up ..."

Thus, he argues, work is important to a person not only because of the economic benefits to be gained from it, but also because of the sense of achievement and respect from others which one derives from work.

For the Filipino government employee, it seems, the two sets of factors—intrinsic and extrinsic motives—interact as motivators (using the Herzberg model) and are not antagonistic needs. Neither can one say that these motives are hierarchically scaled, inasmuch as work satisfaction is perceived to be the product of a mix of favorable intrinsic and extrinsic work conditions.

Thus, individual work productivity in the public sector can best be enhanced by providing a favorable environment for the job—including fair wages, good interpersonal relations, and a good physical setting, as well as by enhancing the nature of the work itself—like providing increased individual responsibility and ample opportunities for growth and achievement.

References

- Aganon, M. & S. Amante. (1988). Institutional Variables Associated with Productivity. Q.C.: DOST-UP Integrated Research Program.
- Brown, J.A.C. (1973). *The Social Psychology of Industry*. Middlesex, England: Penguin
- Corpus, A.C. (1988). "The Filipino Worker in Focus: Concepts of Work, Work Behavior and Productivity." Typescript Terminal Report to the DOST-UP Integrated Research Program.
- McCormick, E. & D. Ilgen. (1980). *Industrial Psychology*. New Jersey: Prentice-Hall.
- Torres, A.T. (1989). "Human Factors: Their Impact on Government Productivity." Typescript Terminal Report to the GPIIP.