

INDIVIDUAL AND SITUATIONAL INFLUENCES ON PARTICIPATIVE DECISION MAKING

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ABSTRACT

The relative influence of individual characteristics and situational elements on the willingness of managers to follow a participative decision making style had been studied within the framework of the organizational decision making model of Vroom and Yetton. The results indicated that in general the influence of the situational elements were stronger than the influence of the individual characteristics but the opposite was true when the analysis was done separately for the different task dimensions. The results also indicated that certain personality factors were related with the willingness of managers to follow a participative decision making style.

OPSOMMING

Die relatiewe invloed van individuele verskille en situasie elemente op die gewilligheid van bestuurders om 'n deelnemende besluitneming styl te volg is bestudeer vanuit die raamwerk van die organisatoriese besluitnemingsmodel van Vroom en Yetton. Die resultate het aangedui dat die invloed van die situasie-elemente in die algemeen sterker was as die invloed van die individuele kenmerke, maar dat die omgekeerde waar was toe die analise afsonderlik vir verskillende taakdimensies gedoen is. Die resultate het ook aangedui dat bepaalde persoonlikheidsfaktore verband hou met die gewilligheid van bestuurders om 'n deelnemende besluitneming-styl te volg.

Since the Second World War a considerable amount of attention was given to participative decision making as a leadership style which managers may apply when handling the managerial problems they encounter. It was soon discovered that managers differ in the predominant style of leadership they employ and that these differences do in fact have a considerable bearing on their effectiveness (Kemp, 1990; Brynard, 1990; Plunkett, 1990; and Collins and Browning, 1991). However it was not clear what causes these differences in leadership style and two possibilities were in particular considered. The first possibility is that leadership style is the reflection of relative stable individual differences. Heller (1971) studied the influence of personal characteristics of the leader such as knowledge, decisiveness, tact, adaptability, forcefulness, imagination, self-confidence, responsibility, intelligence and initiative on participative decision making. Kaplan (1992) attended to personal characteristics such as a need for mastery, recognition, power, heroic status and influence. Vroom and Yetton (1973) attended to personality characteristics such as cognitive style, leadership opinions, attitudes towards management practises and management orientation, and Steers (1977) attended to need strengths. The second possibility is that leadership style is the result of different situational demands. In this regard Wagner III and Gooding (1987) studied group size, task interdependence and task complexity, Abdel-Halim (1973) studied the personal characteristics of the followers, and Schaubro and Jennings (1991) studied task dimensions.

The results of the studies referred to indicated that individual and situational elements have an influence on managers' preferences for a particular leadership style but the absence of a theoretical model made it difficult to integrate the findings for the purpose of facilitating problem solving training programmes for managers. In particular it became very difficult to determine the relative influence of individual and situational elements on the willingness of managers to follow a participative decision making style. Should individual characteristics prove to be the stronger source of influence, then more attention could be given during the training programmes to the role of these individual characteristics. However if situational elements prove to be the stronger,

then more attention could be given to training managers in analysing various managerial problems in terms of situational elements in order to be able to decide on the most suitable leadership style.

Vroom and Yetton (1973) identified the need for a theoretical framework to assist research in this regard and they developed a contingency organizational decision making theoretical model which they based on the work of Graen, Alvares, Orris and Martella (1970), Haire, Ghiselli and Porter (1966), Heller (1971), Likert (1967) and Simon (1960) as well as on empirical studies of their own. The decision making model was tested by Vroom and Jago (1978), Margerison and Glube (1979), Crouch and Yetton (1987) and Tjosvold, Wedley and Field (1986).

Central in the organizational decision making model of Vroom and Yetton (1973) is the concept that the different styles of decision making by managers can be arranged on a continuum with authoritative decision making at the one end, followed by the consultation of individuals, the consultation of a group of staff members and participative decision making.

Vroom and Yetton (1973) described the decision making styles as follows:

- Authoritarian decision-making: The leader makes the decision by himself and consults subordinates only to obtain information when necessary.
- Consulting individuals: The leader shares the problem with relevant subordinates individually to get their opinions.
- Consulting groups: The leader shares the problem with subordinates in a group meeting in order to get their opinions and then he/she makes the decision by him/herself.
- Participative decision-making: The leader shares the problem with subordinates in a group meeting and attempts to reach group consensus on solutions.

To determine the willingness of a manager to follow a participative decision making style in solving a problem Vroom and Yetton (1973) made use of the case study technique by describing various managerial problems and by presenting the various styles as response categories which have to be used when the testees indicate how they would like to solve the problems.

They made use of the Goode Algorithm to assign numerical values to the scale points to enable them to analyse the data which they obtained by applying the case studies technique for research purposes. The following are the numerical values:

- Authoritarian decision-making: 0.0
- Consulting individuals: 5.0
- Consulting groups: 8.125
- Participative decision-making: 10.00

In their studies on the relative influence of individual and situational elements on the willingness of managers to follow a participative decision making style Vroom and Yetton (1973), and Steers (1977) found that in general situational elements explain three times more variance than individual characteristics.

It is however possible to extend the model of Vroom and Yetton to include task dimensions as a moderating variable of the influence of individual and situational elements on the willingness of managers to allow participative decision making.

It may be quite possible that the nature of certain task dimensions may cause the managers to be more willing to allow participative decision making than when they are dealing with other kinds of tasks. For the purpose of this study the different task dimensions a manager may encounter are classified as task organizing, standard setting, training, maintaining discipline, directing behaviour and supporting. This classification of managerial dimensions is based on the work of Cartwright and Zander (1960), Wofford (1970), Bowers and Seashore (1966), Fox (1975) and Heller and Yukl (1969). The different task dimensions are defined as follows:

Task organizing: The planning and scheduling of the activities of the staff.

Standard setting: The planning, evaluation and maintenance of work standards.

Training: The training of staff in certain competencies and the general orientation of staff with reference to task requirements and work circumstances.

Maintaining discipline: The application of the disciplining measures for organizational misdemeanours.

Directing behaviour: The promotion of the work by giving instructions in such a way that the work involvement and work input of the staff are promoted.

Rendering support: The consideration of the staff by showing an interest in their personal problems and by rendering support.

As little attention had yet been given in the Republic of South Africa to the relative influence of individual and situational elements on the willingness of managers to follow a participative decision making style and as a well constructed personality questionnaire such as the Sixteen Personality Factor Questionnaire, which covers a broad spectrum of individual characteristics, had become available it is the aim of this study to test the following hypotheses:

The situation plays a greater role than individual differences in the determination of allowed participation.

Personality variables have an influence on the amount of subordinate participation allowed by superiors in group decision making.

The purpose of this study is to examine these hypotheses in general and in the context of the different task dimensions. Therefore a third hypothesis is formulated:

The different kinds of tasks which a manager encounter will modify the influence of individual characteristics and situational elements on the willingness of managers to follow a participative decision making style.

The testing of this last hypothesis involves finding answers for the following two questions:

Is the relative influence of the individual and situational elements different in the context of different task dimensions?

Do different personality characteristics correlate with participative decision making as evaluated with a case study technique within the context of the different task dimensions separately?

METHOD

Population

The population consisted of 88 managers in the service of a national production organization. They were all white Afrikaans speaking males. The ages varied between 30 and 55 years with the most frequent age group between 35 and 45 years. The majority of the group had a standard ten certificate and four of them reported a degree. The managers were responsible for the smooth running of the administration of their branches which were directed at promoting the sales of the products. This group of managers is thus quite homogeneous in terms of sex, language and race. There are thus definite limitations in generalizing the results of this study to other organizations where there are females, English speaking managers or members of other racial groups present. However in many organizations in the Republic of South Africa there are groups or subgroups who are similar to this research group and the results of this study may be generalized to some extent to them. Fortunately for many managers attending to the administration of their sections forms a major part of their work. However it may be more advisable to run similar studies in organizations which may find the results of this study of practical value in terms of management training.

Procedure

The questionnaires were administered by a registered psychologist in the service of the organization as part of an official evaluation programme of the managers at various sentra. The managers were assured that the information would be handled confidentially and that feedback would be given individually.

Measures

Participative Decision Making Measure (PDM)

The instrument to measure participative decision making was a case study technique which was based on the format of the decision making instrument of Vroom and Yetton (1973). Twenty-four managerial problems were covered by the case study technique. The response categories of the scale for each case study were those in the continuum of decision making styles namely authoritarian decision making, consultation with individuals, consultation with groups, and participative decision making. Following Vroom and Yetton (1973) the four response categories were coded respectively as follows: 0.00, 5.0, 8.125 and 1.00.

The total score of a manager on the twenty-four managerial problems was considered as his general participative decision making score. Each of the six task dimension was covered by four managerial problems and the scores of the managers on each of the different task dimensions were also calculated.

The test-retest reliability of the items of the case-study technique as calculated over a period of eight weeks was found to be 0.55. The means and standard deviations for the research group on the different constructs of the Participative Decision Making Measure and on the Sixteen Personality Factor Questionnaire are presented in Table 1.

TABLE 1
THE DESCRIPTIVE STATISTICS OF THE TASK
DIMENSIONS AND PERSONALITY FACTORS

Construct	Average	Standard deviation
Task dimensions:		
Task structuring	10,31	2,57
Standard setting	8,62	2,31
Training	10,87	2,31
Maintaining discipline	9,97	2,12
Supporting	10,56	1,87
Directing behaviour	10,64	2,21
Personality factors		
A: Cool Warm	11,78	3,10
B: Concrete thinking		
Abstract thinking	7,85	1,91
C: Affected by feelings – Emotionally stable	18,25	3,61
E: Submissive – Dominant	14,57	4,21
F: Sober – Enthusiastic	13,27	4,59
G: Expedient – Conscientious	15,35	3,49
H: Shy – Bold	14,23	5,33
I: Tough-minded – Tender-minded	6,89	3,32
L: Trusting – Suspicious	10,21	2,74
M: Practical – Imaginative	12,43	2,72
N: Forthright – Shrewd	12,10	2,65
O: Self-assured – Apprehensive	9,37	3,94
Q1: Conservative – Experimenting	10,15	2,79
Q2: Group-orientated – Self-sufficient	9,81	3,56
Q3: Undisciplined self conflict – Following self-image	11,35	3,01
Q4: Relaxed – Tense	9,57	4,84

It is clear from this table that managers are more willing to allow participative decision making when they are encountering problems in training, motivating and supporting staff than when they are structuring tasks, setting standards and maintaining discipline. Thus the managers tends to be less willing to allow participative decision making when the nature of the task is task orientated.

The Sixteen Personality Factor Questionnaire

The psychological instrument to evaluate the personality characteristics of the managers was the Sixteen Personality Factor Questionnaire of Cattell (1962) which was developed to evaluate sixteen broad spectrums of stable personality characteristics.

Statistical analysis

The relative importance of the individual characteristics and situational elements were determined by means of a two-way classification without replica model. This is the same data analytical approach as the one followed by Vroom and Yetton (1973). Since each subject responded to 24 cases in the PDM instrument, variations across cases by one individual were termed "situational" effects by Vroom and Yetton, while variations across individuals on one case were termed "individual" effects.

To study the relation between specific personality characteristics and participative decision making the Pearson-product-moment-correlation-coefficient was used. This approach is in accordance with the one followed by Vroom and Yetton (1973) and Steers (1977).

RESULTS AND DISCUSSION

The hypothesis that the situation elements have greater influence than the individual differences in the determination of allowed participation by managers was supported by the two-way analysis of variance of the data on the twenty-four

managerial problems in the case study technique. The results of this analysis are presented in Table 2.

TABLE 2
TWO WAY ANALYSIS OF VARIANCE RESULTS FOR
PDM SCORES ON TWENTY-FOUR MANAGERIAL
PROBLEMS.

Sources of variance	Degrees of freedom	Sum of squares	Mean squares	F	PR > F
Due to "Situation"	23	269,38	11,71	11,24	**
Due to "Individual"	87	197,67	2,26	2,18	**
Error	2 001	2 079,47	1,04		
Total		2 546,52			

The findings of the two way analysis of variance indicate that individual and situational elements have both a significant influences on participative behaviour ($p < 0,01$). The situational main effects accounted for 10,5% of the common variance while individual main effects accounted for 7,7%. The fact that the situational elements account for more of the common variance than the individual characteristics corresponds with the findings of Vroom and Yetton and Steers. However the difference between the amount of variance explained by the situational elements and individual characteristics is much smaller than in the studies of Steers (1977) and Vroom and Yetton (1973).

The two way variance analysis was also done for the six task dimensions separately. The situational elements explain on the 1%-level a significant amount of variance in the PDM-scores of the managers when they have to set standards in the work of the staff and when they have to train, motivate, support and maintain discipline. The individual characteristics explain on the 5%-level a significant amount of variance when the managers have to deal with problems in training the staff.

The percentages of common variance explained by the situational and individual elements in the PDM-scores for the different task dimensions are presented in Table 3.

TABLE 3
THE PERCENTAGES OF COMMON VARIANCE
EXPLAINED BY THE SITUATIONAL AND
INDIVIDUAL ELEMENTS IN THE PDM-SCORES OF
THE MANAGERS FOR DIFFERENT TASK
DIMENSIONS.

Task dimension	Percentage of common variance explained	
	Situational	Individual
Task structuring	1	29
Standard setting	7	27
Training	9	28
Maintaining discipline	6	25
Supporting staff	16	24
Motivating staff	9	27

The hypothesis that the task dimensions modify the relative importance of the situational and individual elements is also supported as could be seen from the results presented in Table 3. The individual elements are constantly explaining a higher amount of common variance than the situational elements when the managers are considering different managerial styles in dealing with managerial problems. For example the individual elements are explaining 29 times more of the variance of the PDM-scores on the task structuring task dimension than the situational elements. These results indicate that although the situational elements are explaining more of the

common variance of the score of the managers on all twenty four items, the individual elements are explaining far more common variance than the situational elements when the problems are grouped into task dimensions. It may simply be that the nature of the problems within each task dimension is far more homogeneous than the nature of the problems across the different task dimensions.

Task dimensions is thus one factor that must not be ignored when the influences of situational and individual elements are compared and it does appear advisable to deal with participative decision making in terms of task dimensions.

Regarding the correlation of the individual characteristics with the participative decision making scores no support could be found that the individual personality factors would correlate with the PDM-scores. However as can be observed in Table 4 the task dimensions do modify this situation.

TABLE 4
THE PEARSON-PRODUCT-MOMENT-CORRELATION-COEFFICIENT OF THE PERSONALITY FACTORS AND THE TASK DIMENSIONS

Personality Factors	Task-structuring	Standard-setting	Maintaining discipline	Directing behaviour
A		0,21*		
B	0,21*	0,21*		
E			-0,29**	
F	-0,21*			
N				-0,24*
Q1		0,20*		

** : $p < 0,01$

* : $p < 0,05$

From Table 4 the following is clear:

The more abstract and sober thinking a person is the more willing is he to allow his staff to participate in solving problems which he encounters when structuring the tasks for the staff.

The more warm hearted, abstract thinking and experimenting managers are the more inclined will they be to allow their staff to participate in the solving of the problems which they are encountering when setting the standards in the work of the staff.

The more submissive managers are the more they will be inclined to allow their staff to participate in the solving of problems which the managers are encountering in maintaining discipline.

The more forthright managers are the more will they be inclined to allow their staff to participate in the solving of the problems which the managers are encountering when motivating the staff.

The finding of this study has definite implications for leadership style training programmes for managers. First it is of value when an orientation approach has to be found. On the basis of the findings of Steers and Vroom and Yetton the influence of the situational elements may receive too much emphasis in a general orientation programme. Another approach may be suggested here namely that the orientation should be done in the context of task dimensions such as the structuring of tasks, the setting of standards, the maintenance of discipline and the training, supporting and motivating of staff.

In this approach a personality questionnaire such as the Sixteen Personality Factor Questionnaire can play an important part. First of all it can be pointed out to the trainees that managers with certain personality characteristics may tend to allow to their staff more participative decision making when

they are dealing with specific task dimensions. In the light of this perspective the personality characteristics of the trainee can then be discussed individually with them. This approach must be handled in a sensitive way to facilitate discussion on the selection of a leadership style.

CONCLUSION

The conclusion can be made that the findings of this study support the findings of Vroom and Yetton (1973) and Steers (1977) that the situation explains more common variance than the individual elements. It has also been indicated that task dimensions play a strong moderating role in participative decision making. Not only does it play a role in changing the relative influence of situational and individual characteristics but it also affects the pattern in which personality factors manifest themselves in participative decision making.

It has been suggested that task dimensions should be kept in mind when leadership styles are discussed in the training of managers. This is particularly true when the influence of the personality of managers in the selection of a leadership style is considered. In this regard the Sixteen Personality Factor Questionnaire can play an important role as certain factors do correlate with the willingness of managers to allow participative decision making.

Although there are definite limits to generalizing the results of this study to other organizations it can be stated here that a research method for studying the influence of individual characteristics and situational elements on the willingness of managers to allow participative decision making has been successfully demonstrated.

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