TOWARD A SOUND MANPOWER
UTILIZATION IN ORGANIZATION:

Case Study of Keystone Mutual Funds Co., Inc.

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No two persons live in the same cognitive world. Each person has a unique view of the world because his image is the products of his physical and social environments, his psychological structure, his goals, and his past experiences. Besides, managers are dealing with a great variety of people in their day-to-day business. It is for this reason that a study of human elements in organization is such a difficult task.

Even though no two persons have precisely the same conception of the world, there are fortunately many common features on human behavior. The reason is due to the fact that the human being has similar nervous system and shares certain common wants. Our task in the study of human behavior in organization is to find such common features and to generalize them so as to be predictable. In other words, we can not get any meaningful solution for human problems in individual base, but it is possible to achieve a generalized answer in the group as a whole. Thus, the study of human relations is difficult but not entirely impossible task.

As a mutual funds company, Keystone is unique among investment management companies. Instead of a single fund, or a few funds, Keystone presents a series of specialized funds. Each represents a specific class of security market. Each has its own characteristics of relative stability, quality, growth potential and income, individually or in combination, of helping to solve a wide range of investment problems for investors.

The principles set forth by the founder of Keystone in 1932 have proved so sound that today more than 250,000 shareholders have put their money in The Keystone Funds. Keystone is located in the heart of Boston, Massachusetts and has 600 employees.

As can be seen from the company's organization chart(figure 1), three vice-presidents control all areas of activities in Keystone. First vice-president is in charge of investment and research departments that are of course the key areas of the company. Second vice-president is responsible for sales, ad-

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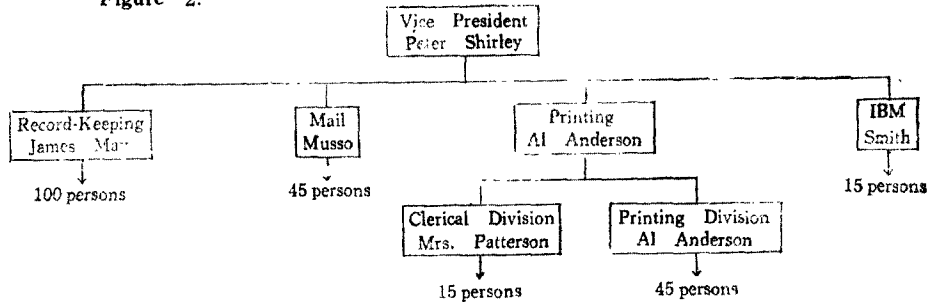
Figure 1.
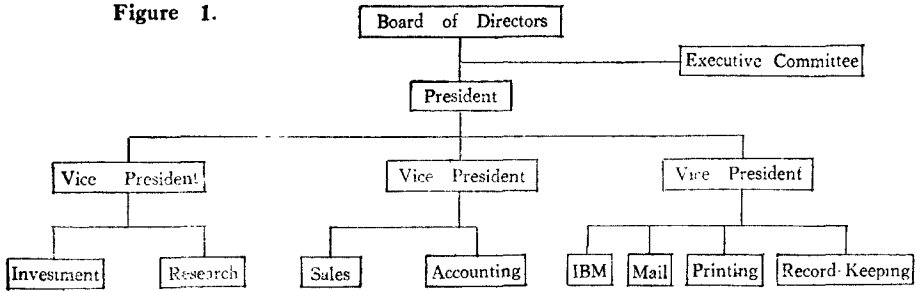
vertisements, and accounting. Most of routine works, such as record-keeping, tab, mail, and printing are under the supervision of third vice-president named Peter Shirley. It is concerned with the area of Shirley's supervision that this paper deals with.

There are four major departments under vice-president Shirley's jurisdiction; Printing; Record-Keeping, IBM, and Mail. Printing Department consists of two divisions; one is Printing Division which is reponsible for all kinds of company's printing materials. Like an ordinary printing shop, it is more likely a factory rather than a business office. The other is called as Clerical Division which is designed for providing all sorts of clerical helps for Printing Department. Both divisions which account for more than 70 workers are under the supervision of Al Anderson, head of Printing Department. Anderson (55 years old, married, 3 children) has been with Keystones for more than 20 years and eventually became an expert in the area of printing. He is, so to speak, a well-rounded man, likable type of person, and regarded as a good boss among people in the Department.

Record-Keeping Department is the biggest in the company in terms of the number of employees. A hundred people are working in this Department under the direction of James May, head of Department. The nature of their jobs is highly routine types which are concerned with company's stockholders, such as to make and keep shareholders' records; to prepare stock certificates for new shareholders; to send dividend checks and so on. Mail Department, as its name suggests, is taking care of all sorts of company's mails and regarded as the lowest level of the company. IBM Department is the most recent establishment with the company and possesses five computer machines of IBM 1404 type. Figure 2 is a chart of hierarchical structure under vice-president Shirley.

Figure 2.

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                          Vice  President
                          Peter  Shirley
   ┌────────────┬──────────────┬──────────────────┬────────────┐
 Record-Keeping    Mail         Printing                      IBM
 James  Mar        Musso        Al  Anderson                  Smith
   ↓               ↓                                           ↓
 100 persons     45 persons                                 15 persons
                          ┌──────────────┬──────────────┐
                     Clerical  Division   Printing  Division
                     Mrs.  Patterson      Al  Anderson
                          ↓               ↓
                        15 persons      45 persons
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Clerical Division of Printing Department composes of 15 female employees who had about high school education. Most of them are married and over 40 years old. This Division has a group leader named Rose Patterson (50 years old, married, two children) who has been with the company for more than 10 years. Her main job is to coordinate her work group with Printing Division under the direction of Al Anderson. As a typical career woman, she is a matter-of-fact type and apparently a very efficient worker. She is friendly, calm, and kind in the normal circumstances (when she is in good mood), but tends to be hysterical if she gets nervous. Few people in Printing Department really like her even though all of them agree that she is a good and hard worker.

Daily activities of Patterson's work group are mainly concerned with processing of shareholders' statements which are the records of Keystone Funds sales. All of transactions are recorded in shareholders's statements which indicate the amount of stocks individual stockholder buys or sells. When Keystone dealers report their amounts of sales, a new set of shareholders' statements is made in IBM Department through computer machines. The statements come out everyday, between 9 AM and 10 AM, and this is first stage of game as far as the process of shareholder's statements are concerned.

Second stage of game begins when Patterson's work group receives the statements from IBM Department (usaully between 10 AM and 11 AM). Here, the statements are properly cut and bursted (to take out carbon papers and cut into pieces) by machines. Member of Patterson's work group should check all of statements in case of misprints and classify them according to their colors; there are four colors, white, yellow, pink, and blue. And then white copies are sent to Record-Keeping clerks who are going to prepare stock certificates and stock cancellation checks consulting with the company's designated

bank. A complete set of certificates and checks is supposed to come back again to Patterson's office. Blue and yellow copies are sent to Bill Brown, an expert printer, in Printing Division to be folded and enveloped by automatic folding machines. Bill Brown is supposed to send his products—the enveloped shareholders' statements—to Mail Department to be mailed out. Pink copies are sorted down according to their indicated territories and then send to Record-Keeping Department in order to keep them as company's permanent records. As far as shareholders' statements are concerned, they are completed in this stage.

Third stage of the game starts with stock certificates and cancellation checks which were made by Record-Keeping clerks on the basis of white copies of shareholders' statements. With respect to stock certificates, Patterson work group should carefully examine whether the numbers of shares and amounts of money are correct and whether there is any misprint. As to cancellation checks, each check should be matched with the white copies' statements. And then, both of certificates and checks are to be folded together and enveloped by hands, since there is no appropriate machines for this type of materials. At the end of third stage, mail men pick up the enveloped cirtificates and checks to be stamped and mailed out (to the post office). Figure 3 is a summary of work process (stages of game) of shareholders' statements and certificates. It goes as follows:

(1) IBM Department→   (2) Patterson's work group→

(3) { Bill Brown in Printing Division } →
    { Record-Keeping Department   }

(4) Patterson's work group→   (5) Mail Department→

(6) The Post Office.

Every process concerning to shareholders' statements and certificates indicated above is daily routine and should be completed between 9 AM to 5 PM

Figure 3.

Vice-President
Peter Shirley
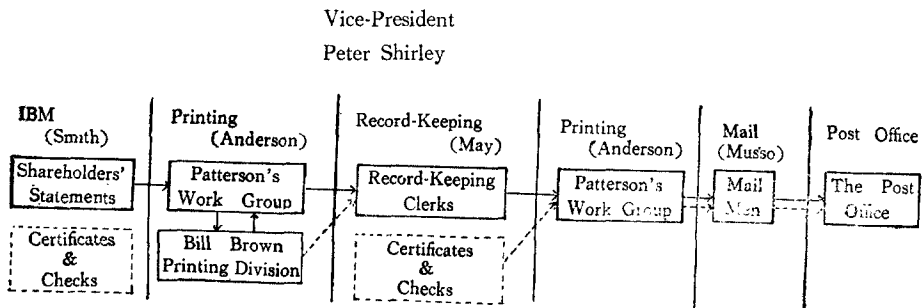
(it is the company's policy that no overtime is permitted). With respect to Patterson's work group, day's work begines around 10 AM in every morning when they receive shareholders' statements from IBM Department (first stage of game). As has been stated, the procedures required for shareholders' statements are highly routine and are actually well performed. Like the case of shareholders' statements, the job of doing certificates and checks are also a routine type, but there are some peculiar characteristics in performing this work.

First of all, each of certificates and checks has serial number that should be kept in order (i.e. the lowest number should be on the top). The best way in allocating workers to this kind of job is to make two groups from 15 member, and each group is composed of three persons working on either certificates and checks. One more person is needed for the purpose of coordination between two work groups (check's group and certificate's group). In short, the nature of the work is such that seven persons are the optimum number to perform most effectively(7 persons were actually working for this purpose). The rate of return in performance of the job, so to speak, would be reached at a maximum level with seven persons only, no more and no less.

Secondly, an accuracy in performing of checks and certificates is so important that the company can hardly afford any mistake, specially those made by Patterson's work group. This means that seven persons on Patterson's office should handle them very carefully and take proper time for rechecking (all take at least two hours).

Thirdly, like the case of shareholders' statements, certificates and checks should be mailed out before 5 PM(the post office is closed at 5 PM). Unlike that of shareholders' statements, however, time element is extremely important in the job of certificates and checks because of the fact they are available to Patterson's work group only in the afternoon.

Thus, Patterson's work group of Clerical Division in Printing Department gets in a trouble if Record-Keeping clerks send the certificates and checks to them after 3 PM (the company closes at 5 PM). What actually happened was that Patterson quite often received them around 3:30 PM. If this is the case, Patterson's work group should speed up their works if they are to finish before 5 PM. Since the job requires a great deal of careful attention not to

make any mistake and needs only 7 persons not to get confused, there are most likely to exist some mistakes if the work group (7 persons) are really trying to finish their job within less than two hours. This is a great dilemma for Patterson; if she tries to finish the job before 5 PM(which is required to do so), then there may be some mistakes; if she tries to work very carefully not to make any mistake, then the job can not be done before 5 PM (which is against the company's rule). The complicated element in this dilemma is that a delay of certificates and checks from Record-Keeping clerks does not happen all the time, but frequently so that anybody can hardly make 'an impressive complaint' to Record-Keeping Department.

Patterson is aware of this, and that is what bothers her. Whenever the certificates and checks are not arrived at her office before 3 PM, Patterson tends to be so hysterical that her behavior is becoming somewhat irrational. She gets confused herself and does not know what to do. The worst of all is that she just keeps complaining to her work group without much reasons. Obviously, her snubby behavior hurts everybody's feelings, and there exists quite often strange atmosphere of tension among employees of Clerical Division.

The member of Clerical Division is not only people who are suffering from those tensions. People in Mail Department usually rush to Patterson and ask her when they can have their certificates and checks prepared to be mailed out. Patterson's answer is apparently very cold, and it is not unusual to hear of her shoutings. Quite naturally, mailmen get upset because Patterson's rude attitude and of the fact that they can not go home as long as Patterson's work group can not finish their mails. People in Record-Keeping Department are not happy about constant telephone calls from Patterson as well as Anderson, head of Printing Department. Thus, there exists a sort of vicious circle such that all of Keystone employees who have something to do with the certificates and checks seem to get upset. The situation turns out to be much worst if Patterson receives a telephone call from vice-president Shirley concerning to mistakes made by her work group.

Nobody including Al Anderson of Printing Department knows the real reason of delay of the certificates and checks from Record-Keeping Department. Al Anderson heard consistently from people in Record-Keeping Department that they are always terribly busy and short of hands. One possible reason of the delay would be that, since the company's daily sales (stocks)

are highly volatile, the daily amounts of them may be sometimes too much for a given number of persons in the Department.

Adverse effects from the process of certificates and checks can be summarized as follows: in the first place, it has been the fact that the amount of mistakes from Patterson's work group increased significantly, in spite of that the company is no longer tolerable such mistakes. Secondly, mistakes are not confined to Patterson's work group. Some of certificates have often been lost during delivering to the post office. The reason was that the company's mail men were too mush in hurry in order to finish their work before 5 PM. Thirdly, the most serious effect was that the human relations in the company, so to speak, became seriously deteriorated. As a matter of fact, Mail Department and Patterson's work group have highest employees' turnover ratio in the company.

In retrospect of Keystone problems, the crucial point of the troubles seems to be due to the following two factors: (1) lack of coordination among various Departments, particularly between Printing and Record Keeping; (2) and the fact that the certificates and checks are moved around too many different Departments. The cause of above two defects is the result of inadequate organizational structure of Keystone. Before getting into a thorough analysis as to inadequate organization, it seems to be useful to mention of organization structure in broader aspects.

In a business of any size, the organizational structure is one of the crucial factor in achieving higher productivity and job efficiency. The problem involved in this respect have become extremely complicated owing to the fact that the incessant changes in technology, markets, and financial conditions require management reviews on its organizational structure. In other words, the organizational design has become no longer fixed or given but a dynamic factor in daily operation in business.

There are two different theories in organizational designs. One way of them is a functional approach known as 'top down approach'. This type is a traditional approach in that an organization be divided according to its major fuctions such as finance, production, sales, and so on. The other approach which has been recently developed emphasized the fact that an organization should be divided with respect to its actual work flow. This heoryt is known as 'bottom up approach' in that any organization structure should be based upon the actual

performance of work—who does what with whom, when, where, and how often.

The 'work-flow-basis-theory' has attracted a great deal of attention in recent years owing to the fact that the rapidly developing technology makes quite often the functional approach of organizational design as an obsolete theory in regarding to the actual performance of work. Thus, the functional theory of organizational structure has lost its importance in the era of rapid technological changes such as ours.

An inadequate structure of Keystone is the result of the fact that it is based on the functional theory rather than work flow theory. In other word, it can be said that Keystone failed to make adequate adjustments of its organizational structure according to changing technology. Up to the World War II, Keystone did not own any modern computer machines to make the shareholders' statements, and therefore the statements were made in Printing Department. It was for this reason that Clerical Division was attached to the Department. After using compter machines, however, the Clerical Division of Patterson's work group becomes much more closely related to Departments of IBM and Record-Keeping and lost its past important tie with Printing Department. For instance, Printing Division has no business with the matter of shareholders' statements, stock certificates, and cancellation checks, except in folding and enveloping by machines.

The core of troubles with respect to the certificates and checks was their usual delay from Record-Keeping Department. Since Clerical Division of Patterson's work group is very closely related with Record-Keeping Department, it should be belong to Record-Keeping rather than Printing. The delay in the certificates and the lack of coordination between Patterson and Record-Keeping Department can be solved if they are under one man's control, in this case, James May (head of Record-Keeping Department). Under this circumstance, Patterson's work group will work at the same office with Record-Keeping clerks such that they can most likely adjust their flow of work to optimum level.

Another point to be mentioned is the relationship between Printing and Mail Department. As has been seen in the case of computer machines, Keystone did not have many sophiscated machines with respect to folding, cutting, enveloping, and many others for mailing materials during 1930's. This

means that most of mailing processes should be done by hands and therefore require the large number of people in Mail Department. This has been changed. Keystone today uses many of highly automatic machines in mailing processes, and its operations require a great deal of skills such that it would better be operated by skilled workers in Printing Division rather than mail men. Futhermore, the relationship between Printing and Mail Departments has become close due to the fact that nine tenths of the company's mails are heavy printing materials and directly come from Printing Division. This is so because any mutual funds company has to increase its advertising activities in order to be survived in severe competition in recent years. This fact undoubtedly increased a great amount of printing materials to be mailed out. Therefore, Printing and Mail should be merged into one Department under one man's control, if more smooth-work-transition can be realized.

Therefore, problems involved in the certificates and checks of Keystone can be solved if a reorganization with respect to Patterson's work group and Mail Department is to be done. Under the new plan, there would be no coordination problems concerning to the certificates and checks. Figure 4 is a new chart of reorganization based on the flow of work. As soon as Patterson receives the statements from IBM Department, her work group will work on them and send to Record-Keeping clerks who are working in the same office under the same authority. After Record-Keeping clerks finish, the statements as well as the certificates and checks will directly go to Printing Department, instead of coming back to Patterson's office. A smooth transition in the process of certificates and checks would be achieved, since all of necessary works for them be completed in Record-Keeping Department except enveloping and mailing.

Figure 4.

Vice-President
Peter Shirley
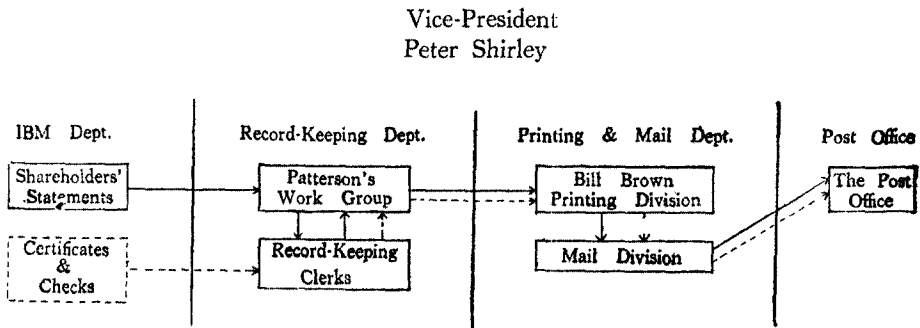
Many of Keystone people said that Mrs. Patterson's hysterical character is the main reason why they have such jam in business of the certificates and checks. Her impatient attitue, they think, makes Record-Keeping clerks deliberately delay their work to give her a hard time. They believe that, if Patterson changes her behavior, there would be much better coordination between her and Record-Keeping Department. As has been indicated before, Mrs. Patterson is a woman of unusual character which would not be very appreciable by others. Her nervous character can be no doubt a part of aggravating factor in making the troubles worse, but it is only a minor factor.

Besides, we have to think about what makes her nervous. She is very efficient in her work and very calm as long as the certificates and checks come to her on time. Her nervous character is not the cause of the delay, but rather the delay of the certificates due to the lack of coordination induces her to behave irrationally. In other word, her snubby behavior that create considerable amounts of tension among her work group is the result of the trouble rather than the cause of it.

A lesson from Keystone case can be concluded as follows. A maximum manpower utilization in organization is a necessary condition to achieve a higher productivity and efficiency. A maximum manpower utilization means how we can use our manpower resources into the most effective way in achieving our goal. One of the most important factors in this respect is to bring or maintain desirable harmony of human components in human organization. How to achieve the desirable harmony would depend upon whether its human components in organization are happy in their works. The term 'happy' here refers to 'on-the-job-satisfaction'.

Then, what are the methods of achieving on-the-job-satisfaction in organization? When an employee is happy with his work, it is not necessarily a result of the sums of good pay, good supervisors, good working conditions, etc. It can be achieved rater through a minimization of stress in performing their daily works. In order to minimize such a stress, it is necessary to keep a normal balance for individual worker between his personality and his job —an equilibrium of normal pattern of interaction between his distinctive personality and his work. If that equilibrium of individuals can not be maintained by one reason or another, there are bound to exist some sorts of tension or stress.

What has happened to Patterson in Keystone is that her personality was intolerable in doing her job due to the inadequate organizational structure. Therefore, she gots stressed, and this stress was spread to all of her work group. This point is clear if we recollect the fact that she was very calm and rational as long as the certificates and checks came to her on time (before 3 PM). As has been proposed, the reorganization of Keystone would restore her to the original state of equilibrium, so would other members of her work group.

The above proposition suggests an important diagnosis of human problems in organization. Suppose we have two possible alternatives in remedying the troubles in organization (as we saw in Keystone case): (1) the choices as to whether we should adjust its human elements according to its organizational structure (for instance, to fire Patterson or to fire all of Patterson's work group in Keystone), or (2) whether we should adjust organizational structure according to its pattern of human behavior, it is always easy and safe to change its organizational structure rather than human behaviors of its employees. This is simply because individual behaviors influenced by his backgrounds, education, etc. is just too complex to derive any meaningful conclusion. It would be always better to adjust non-human elements such that each employee can maintain his state of equilibrium.

And finally, there are tendencies that we overlook any human problem as though there is always a simple and clear-cut answer. As indicated in the case of Keystone, many people thought that 'to-get-rid-of-Patterson' would simply solve the problems with respect to certificates and cheks. As we have examined, this was not the case. The real cause of the trouble was the victim of inadequate organizational structure of Keystone. Keystone failed to recognize the fact that the impact of new technology (buying new computer machines, for instance) may completely change the established pattern of interaction of employees and their state of equilibrium.