K. Mahadevan Pillai

Decision-Making in Contraceptive Behaviour : A Systems Approach

THE concept of decision-making is a crucial area in the field of manage-ment and consumers choice. The focus of discussion here is on the latter aspect and the discussion is centered on selection of family planning methods, namely sterilizations and IUD. In what follows an attempt is made to explain the role of various *(a)* input items in family planning programme (b) structural variables interacting in the process of decision-making *(c)* nature of decision process and *(d)* types of output in a systems framework.

Concept of Decision-making

Decision-making has been studied by social scientists in different fields. Here, the contribution of economists is very substantial. The economic theory of consumers' choice centres on the notion of the subject value or the utility of the alternatives among which the decider must choose. They assume that people behave rationally, i.e. they choose in such a way as to maximise utility or excepted utility. Homan's[1] theory of social change is based on the concept of decision-making that stresses two elements : (i) when an individual must choose between two alternative acts he will base

1. Haitians, George Casper; Social Behaviour. Its Elementary Forms, Chapter 5, Harcourt Brace.

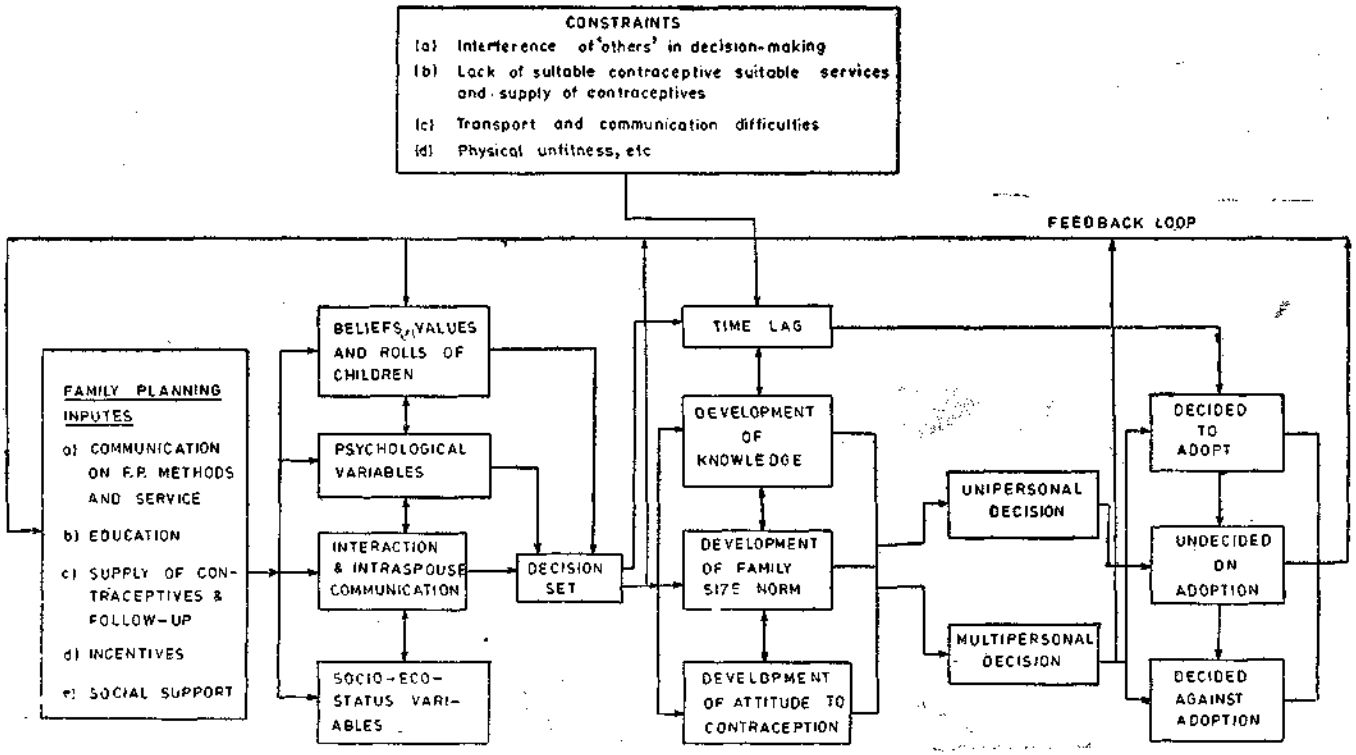
his choice on the relative values of these acts; and (ii) he will select those acts which he expects will yield a greater profit. Kurt Lewin[2] defined the act of deciding as a transition from a state of indecisiveness to a state of definiteness where one choice gains dominance. Forces favouring one choice dominate; forces favouring other choices diminish or, become zero. Lewin explained further that when the relative potency of one of the opinions for decision is increased more than that of the other, or the potency of the other opinion is decreased, the decision is framed in line with the dominant opinion. The reinforcement of opinion leading to the decision or retardation of decision, depends on the nature of the inter-action of various forces, personal and impersonal, from time to time, on the respondent. Decision-making for adoption of family planning methods results during the course of the respondent's exposure to information and education when he is confronted with different alternatives by himself or in a group situation. He selects one alternative as a result of the reinforcement gained for that choice in the decision system. (See Diagram I).

How People Make Decisions; An Illustration

Mrs. Santhamma received information on tubectomy during her 8th conception. She feared that tubectomy would sometimes cause death. Her anxiety was supported from the rumour that she heard from her neighbours who reported deaths on account of tubectomy. She therefore, put off her decision to adopt tubectomy after her delivery. However, she could not even do it after her 9th delivery on account of her prevailing anxiety about the adverse consequences of sterilization.

While her daughter-in-law was pregnant, she conceived for the 10th time. She felt delicate to be pregnant simultaneously with her daughter-in-law. This cultural element reinforced her just favourable orientation to a more favourable decision. Soon after this she delivered her tenth child. Her delivery was attended to by a local midwife who predicted that she had yet to produce six more children in quick succession. This made up her mind to undergo tubectomy forthwith- She underwent sterilization on the 3rd day of her tenth delivery.

2. Kurt Lewin ; Field Theory in Social Science ; Harper and **Row,** pp. 203.



1. *Structural variables elaborated*
   1. *Value* for sex and No. of children, cultural beliefs. Roles of children-performing rituals, old age and other support, economic productivity, continuity of lineage, etc,
   2. *Psychological variables*—fear and anxiety, perception, aspiration, rumour, psychic satisfaction of contraception and children and motivation.
   3. *Dynamics of intra-spouse communication*—communication vs. non-communication, dominance vs. submissiveness, concurrence vs. autonomy.
   4. Socio-economic status variables.
   5. Interaction with peer, kin, spouse and reference groups.

DIAGRAM I: A SCHEMATIC MODEL OF SYSTEMS APPROACH IN DECISION-MAKING ON CONTRACEPTIVE BEHAVIOUR

The factors that tilted her marginally favourably oriented opinion to a definite favourable decision are many. Difficulties of maintaining a large family had already developed a favourable opinion in her. But the motivational element was not sufficient to counteract the prevalent rumour about the adverse effects of sterilization. However, her fatalistic belief in prediction about future pregnancies and the delicacy in conceiving simultaneously with daughter-in-law absolutely minimised her negative attitude in decision-making. This led her to a just favourable decision and subsequent adoption of the tubectomy.

Components and Concepts of Decision -System

The major components of decision-making system in family planning are (1) the input variables—communication, education, service and supply of contraceptives, follow-up and incentives; (2) structural variables-socio-economic status variables, interaction of leaders, peer, reference and kin groups, religious and other cultural beliefs, value for male and female children and their role, intra-spouse communication and its dynamics; (3) constraints; (4) processor variables like (0 development of knowledge *(ii)* development of family size norm and *(in)* formation of attitude; (5) Decisional output—decision to adopt or adopted, indecision and decided against adoption. All these processes develop through a uni-personal or multipersonal medium which characterises the decisions into uni-and multi-personal ones and the feed-back loop.

Family Planning Inputs

Family Planning inputs in decision system are mostly, innovations in our culture. An innovation is anything perceived as new[3]. There are many traits of innovations in family planning programme. Each contraceptive is an innovation[4] whether it is condom, diaphragm, loop or any other device. The modern concept of small family norm is yet another theme of innovation. All these traits were not familiar to our culture till very recently but there have been isolated uses of certain of these contraceptives by a section of elite groups in the recent past. Acceptance of

3. Everett M. Rogers, Diffusion of Innovation.
4. Family Planning : A Problem of innovation in social change, K. M. Pillai (Mimeo).

family planning contraceptives by the general population depends on how a consonance of innovation could be developed with the existing social system and how these innovations could freely permeate through the existing socio-cultural milieu and psychological field. No innovation can be absorbed into any system, leave alone family planning, without creating necessary conditions in the related systems. A few other inputs, other than contraceptives, as shown in the diagram, are intended to create a climate of consonance of the innovating family planning methods among the people. Effective utilization of all those inputs forms a minimum basic prerequisite for the success of the innovations.

Structural Variables

Values

Traditional societies by and large, value the sex and number of children much more than the modern ones. As a result of modernization many traditional values are undergoing change or being replaced by new ones. Values for a larger number of children and for children of particular sex have found their presence in many parts of India and even today it is a force to be reckoned with. Relative value attached to a male or a female child in a patrilineal or matrilineal society is based on the role expected of the concerned child in respective societies. Both male and female children perform a number of roles in different cultures in India. At least one male child in a patrilineal society, and one female child in a matrilineal society, is necessary for the continuity of respective lineage. Children of both sexes have to perform rites like death rituals and the like. Providing support to parents during old age is yet another role. In a traditional set up girls and boys share the responsibilities and work of mother and father respectively and thus support them. Thus the basis for value, attached to male or female children, is linked with many related role of sub-systems for children in society. Certain of these values function as deterrants to planning innovations so long as the parents have not obtained the requi-family site number of children in both the sexes.

Cultural Beliefs

Certain beliefs act in favour of family planning, while others do not. People of many communities in India believe that conception is an exclusive creation of God and that contraception is not helpful. Catholics con-

sider use of contraceptives to be a sin as it interferes with procreation, and that birth control is against the sanction of God. Hindus too visit pilgrim centres and deities of fertility cult for offering prayers and presents to secure conception. Different rituals and offerings are associated with conception in different cultures : drinking Ganges water, performing penance in certain temples for a particular period of time, offering valueable gifts to the Gods and Godesses, and the like. All these arise from lack of proper understanding of the biology of reproduction. A change in these traditional beliefs about conception is necessary to facilitate a favourable decision for accepting any family planning innovations. However, there are also certain beliefs which may facilitate decision on family planning like abstinence observed during certain religious occasions and the post-par turn period.

Interaction Variables

Communication of information on family planning in Indian villages is mostly channelled through inter-personal mouth-to-mouth exchange. Inter-personal interaction and communication is important as a catalysing and motivational force for decision-making. It is important to identify all the prevailing sources of communication to strengthen and facilitate their influence on respondent for positive action. For the vasectomised, family planning workers and canvassers are the principal' sources of communication and for tubectomised and IUD adopters, maternity assistants hold the dominant position among all the sources of communication. Other prevalent communication media are the newspaper, radio, cinema, etc. A few other interaction variables have a positive or negative influence on decision-making. Favourable factors found to be important are (i) influence of local leaders and other members of their kinship, reference and peer groups, *(ii)* influence of friends and adopters, *(iii)* confidence reposed on credible resource persons like doctors, family planning workers etc.

Decision-set

The decision-set is the individual or group who are primarily concerned with the decision of the respondent including himself. The composition of the decision set varies for different methods and also for different sub-

cultural groups. The number and category of persons constituting the decision set depends on the modesty in discussing matters relating to sex, intra-spouse communication, and the overall permissiveness existing between the subject and the members of his kin, peer and reference groups. Decision-making in family planningis mostly multi-personal in nature, nearly sixty percent decisions for all the methods—vasectomy, tubectomy and lUD-and also in different sub-cultural groups are multi-personal. The knowledge of decision set in the process of decision-making is important for further understanding the role of interaction and influence of various personal forces.

Intra-spouse Communication

Communication between husband and wife is the key element in the whole complex. Intra-spouse communication influences the system of decision-making in many ways. It accelerates the decision in certain cases and in others it deters or delays it. Communication does not end with mere exchange of information between husband and wife. It includes other dynamics of wedded life like dominance, submissiveness, concurrence and autonomy.

Many studies have shown that communication" between spouses differ in many communities. Gandhigram[5] study showed that intra-spouse communication is highest among the socially forward groups and lowest among the backward groups, indicating spousal communication to be a variable characteristic among different cultures or sub-cultures. Communication for vasectomy is 79% among Devanga Chettiars, 63% among Harijans, 60% among Thevars and 50% among Vellalas in the order of caste hierarchy[6]. For tubectomy it is uniformly high among all the groups. This is partly due to the condition laid down for getting the signature of the husband for sterilization of the wife. For IUD, 77% of Devanga Chettiars, 68% Vellalas, 49% Thevars and 53% Harijans did discuss with their spouses before accepting the method.

5. K. Mahadevan, Study of the decision-process in adopting family planning method; G. I. R. H. & F. P. Bulletin Vol. VI. 1, July, 1971.
6. In the hierarchy of caste four castes mentioned here may be ordered next to Brahmins, Vellalas (Agriculturists) occupying the top position, followed by Devanga Chettiars (weavers), Thevars (doing miscellaneous jobs) and Harijans (manual labourers).

The dynamics of intra-spouse communication show that some couples only formally communicate the information but many others play a more positive role in the decision-making. The role performed by a spouse varies according to his/her background and the characteristics of his/her community or social group. Expected roles of the spouse in the dynamics of intra-spouse communication are (i) submissiveness of husband to wife or *vice versa, (ii)* dominance of husband over wife or *vice versa (iii)* concurrence between the husband and wife and (iv) autonomy of husband or wife. Gandhigram study revealed that among two caste groups—Devanga Chettiars and Vellalas—husband-wife concurrence is the general pattern for decision-making. However, male dominance is also visible. But Thevar women were found to be more dominant. Harijan males and females showed less mutual dependence.

Socio-economic Status

The importance of socio-economic variables in decision-making for acceptance of contraception or any other innovations has been well established by many studies. Higher economic and educational levels have invariably been associated with the acceptance of many innovations, including those relating to family planning. Occupational characteristics have revealed differential behaviour in fertility and acceptance of contraceptives. People with farm background have a larger family than others;[7] they also lag behind others in accepting contraception. Gandhigram study has shown that caste has an important role in channelising the course of decision favouring acceptance of family planning innovations. Roy and Kivlin, and also Pillai, showed that upper castes show relatively more favourable response to family planning. All these socio-economic variables may directly influence acceptance of innovations and they do mould the personality of individuals. For instance, Pillai observed a positive association between autonomy of decision and higher education of the respondent.

Psychological Variables

The respondent or the members of the decision set are often confronted with systems of barriers and facilitators. These barriers and facilitators

7. U. N. Mysore Population Study, K. M. Pillai, *ibid*. Roy Prodipto, Kivlin Joseph; Health Innovation and P.P. Development, Hyderabad.

have their origin in socio-cultural environment or in the psychological field. Afew of the relevant psychological variables are discussed below.

Lack of proper understanding of family planning methods, is found to be a primary cause of the development of anxiety and fear against the adoption of methods like sterilization and IUD. People express their anxiety and fear for loss of sexual satisfaction, deterioration of health leading to inability to work, post-operational complications and even loss of life. Lack of understanding leads some women to believe that tubec-tomy could be done only on special occasions, especially the post-partum period. Many of these psychological problems develop from prevailing rumours leading to misunderstanding.

Another psychological factor often negatively influencing the decision is the wrong perception about sterilization. People often perceive sterilization as castration. Learning often occurs through association of ideas. People are familiar with castration of animals. They associate human sterilization with castration due to lack of scientific understanding as well as their susceptibility to rumour. They fear that sterilization might affect the normal sexual behaviour. All these barriers—anxiety, fear and perception, are based on the cognitive inadequacy. Many of these problems could be effectively dealt with by proper and timely education.

Certain other positive psychological factors like the level of aspiration of individuals for development of children and family, facilitate the decision-making. Several social variables facilitate the growth of aspiration. Aspiration develops with the advancement of education and modernization. It can also develop through social education and exposure to favourable life situations. Individual's aspirations for development of child and for better family life, often favourably influenced the decision for acceptance of family planning.

Certain other built-in-motivational factors also equally play important role for influencing the decision favourably among them like the realisation of the advantages of small family, economic advantages, embarrassment of being simultaneously pregnant along with a daughter or daughter-in-law, social-economic difficulties, health, beauty and overall well-being of the members of the family.

Processor Variables

So far we have discussed the various structural variables of the system and their influence on different aspects of the process of decision-making. The process is conceived here as (a) development of knowledge of contraceptives *(b)* development of family size norm and (c) formation of attitude to contraception. All these variables are interrelated and each has its influence on the other. Development of knowledge about family planning facilitates the development of family size norm and the norm facilitates the formation of attitude. However, it is not a precondition that one should develop only after the formation of the other. In the absence of development of norm and a positive attitude people might accept family planning methods in certain situation.

In this regard the influence of incentive and the role of multi-personal decisions are crucial factors. Incentives often play the role of a catalyst in the process of decision making on contraception. In certain category of individuals incentives have played a role much more than a catalysing agent and have generated a favourable decision for accepting the methods, even when he has not achieved adequate consonance with the innovating family planning methods. Certain type and quantum of incentives influence people to take a positive decision in accepting family planning even when they have an unfavourable attitude, because their temporary need overweighs the normal expectations and attitudes. In this context incentive has in fact plugged the gap between awareness and adoption.

Uni- and Multi-personal Medium of Decisions

The processor variables crystalise into a definite pattern of decision with the influence of various forces in the decision system and the decision is ultimately channelised through either a uni-personal or multi-personal medium. Gandhigram study shows the following distribution of uni- and multi-personal decisions in the adoption of the three family planning methods vasectomy, tubectomy and IUD.

Decision-making in family planning is mostly multi-personal in nature. Most of the respondents in all the three categories decided multl-personally. Multi-personal type of decision may be responsible for the

present discrepancy between attitude and behaviour. In a multi-personal context of decision-making, respondents with positive or negative attitudes are sometimes unable to take a decision independently in favour or against adoption as a result of the prevailing dominant influences of the members of the decision-set.

TABLE 1—UNI-PERSONAL AND MULTI-PERSONAL DECISIONS*

Methods	*Uni-personal decisions*		*Mulri-personal decisions*		*Total*	
	No.	%	*No.*	%	*No.*	%
Vasectomy	80	39.4	123	60.6	203	100.0
Tubectomy	10	10.1	89	89.9	99	100.0
IUD	41	21.6	149	78.4	190	100.0

**Ibid.*

Autonomy of the individual is yet another important variable. The autonomy enjoyed by an individual is a clear index of his ability to take decisions independently. In family planning decisions, men showed more autonomy than women. Nearly 40% of men took autonomous decisions. Women in general are less prone to take autonomous decisions; only 10 per cent of tubectomy and 20% of IUD decisions are autonomous.

Our cultural milieu may have been largely responsible for the large scale multi-personal decision-making, but modernization of our social structure is slowly changing the milieu due to advancement of education; economic independence , socia\ mobility, etc. Gandhigram study showed significant positive relative relationship between education and unipersonal decision making (x^2=5.99).

Uni-personal decision, is an autonomous decision, the respondent alone being responsible for the decision. However, multi-personal decision manifests in different forms depending upon the role played by the respondent in the decision set. The emerging possibilities of multi-personal decisions are (*i*) respondent is positively oriented and may take a decision on contraception with the aid of the decision set, (*ii*) subject may be negatively oriented and may take the decision at the instance of the

members of the decision set, *(iii)* the subject may remain indecisive with the conflict of opinions prevailing upon him or in the decision set but may act at the instance of a dominant person.

Output Categories of Decisions

After the introducion of family planning input into an individual of group situation, one or the other of the above alternative choices emerge as the outcome of the process. This is the final behavioural output. In the context of general population comprising both adopters and non-adopters, it may be noted that people may be classified into 3 broad output categories : (1) those who have decided to adopt (2) those who have decided not to adopt and (3) those who are undecided on adoption.

The latter two categories need to.be brought under adoption. The knowledge of inter-relationship of mutually influencing sub-systems and variables in the decision systems will help us to take appropriate effective measures of motivation after getting a thorough feed back of the process of decision-making at different levels. Feed back of information is carried out at different points as seen from the diagram.

Constraints

Many constraints are noticed in family planning programme which are not conducive to favourable decision for accepting one or the other method. These include: (a) interference of other members of decision set, *(b)* lack of suitable contraceptives free from complications, side effects and other discomforts, (c) improper supply of contraceptives and poor service facilities for IUD and sterilization, *(d)* non-availability of transport and communication, *(e)* physical unfitness etc. All these constraints often delay decision process and result into time lag in the decision-system. Time lag may also occur due to influences of other structural variables as well.