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THEORY AND MODEL OF TRANSACTIVE DECISION MAKING

INTRODUCTION

The genesis of human action in given situations lies in his needs, in his possibilities of reducing those needs and his will deciding which of them are to be reduced, in which order and in which way. The situation of man is defined as an inner one by the specificity and power of his needs and the specificity and power of his abilities constituting his internal possibilities to act, and as an outer one by the relation of the supply of acquired goods, their specificity, quality and quantity, to the demand for them consituting his external possibilities, and finally as a relation of its outer to inner aspects, and especially as a relation of resistance power of goods, if acquired, to the action power of man in acquiring them. The resistance power of goods is to be understood as a natural (physical and social) one or as a conventional one expressed e.g. in prices. Similarly the action power of man is to be understood as natural (physical and mental) one actualized in working or rending services, or as a conventional one expressed in money and goods supply. The needs and abilities of man constitute the dynamic (energetical) aspect of his activity, and the will of man, his decisions — the functional (informational) one organizing his activity in taking into account the relation of external and internal possibilities.

1. Need accepting and reducing

Basing on Tomaszewski's theory of action (1963, 1975) in which the paradigm task-outcome plays a central role, we take into account a total unit of human activity sequence from need arising to its reducing (Zimny, 1977). Such sequence of need reducing activity of subject S includes task and outcome of action. In a full sequence of one-level need reducing activity following phases are to be distinguished (Fig. 1):

N   = need arisen, felt

c   = aim as need acceepted for reducing

t   = **task** as aim accepted for achieving in a given situation

pi   = internal possibilities of man, his functional energy and abilities, he knows

pe   = external possibilities of man, the natural and economic goods in his environment, he knows

pe/pi   = relation of those possibilities in regard to the aim

a/c   = action, i.e. actualization of internal possibilities in order to realize the external ones and achieve the aim

o/c   = **outcome** of action in relation to the aim

RN   = reduced need

Note: RN is used further on for denoting the aim of reducing a need

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Fig. 1. Phases of one-stage need reducing activity.
Rys. 1. Fazy jednoetapowej aktywności potrzeboredukcyjnej.

2. A programme of multistage need reducing activity

Human needs (aims, tasks, actions) can be seen as a system in a shape of graph „tree". The branches of that tree stemming from the same root correspond with the need sequences all evolving from the same general need and leading to very different particular ones through successive levels of minuteness. Those sequences of needs accepted for reducing constitute programmes of actions. The model of such a programme contains in turn (Zimny, 1982):

— general subjective need of reducing the grade (state) of untolerable disequilibrium in subject, individual or social, through:

— detailed subjective needs of reducing the particular kinds of needs: biological as sultriness, thirst, hunger, fatigue; psychological as lack of information and of concordance of its inputs; social as lack of social acceptance and acknowledgement,

— objective needs of means of consumption as air, water, food, conditions to rest and sleep, information, social acceptance,

— objectively-functional needs in the sense of instrumental means and in the sense of conventional means as money, tickets etc., to

— subjectively-functional needs of know-how and being able to do it.

(Fig. 2. cf Zimny, 1980, Fig. 1)

In a definite situation, private or official one, an accepted need for reducing personal or social untolerable disequilibrium constitutes the respective general aim c_0 and the respective task. The way of achieving this aim and performing this task is a matter of multistage process of decisions. More and more detailed decisions made at successive stages

define a programme of actions (a way of activity) that leads to achievement of the aim c_o (Fig. 2).

Each aim chosen at k-th level, c_{kw} $(k=1, 2, 3, 4)$ may be a single or a grouped one. In the last case the critical path method is to be applied to arrange the single aims within their group.

The sequence of chosen aims c_{kw} $(k=2, 3, 4)$ may be referred separately and successively to exploitation, production, exchange, distribution and consumption of goods.

If the decisions in different branching points in graph „tree" are known to the subject from his own or from other people's experience,
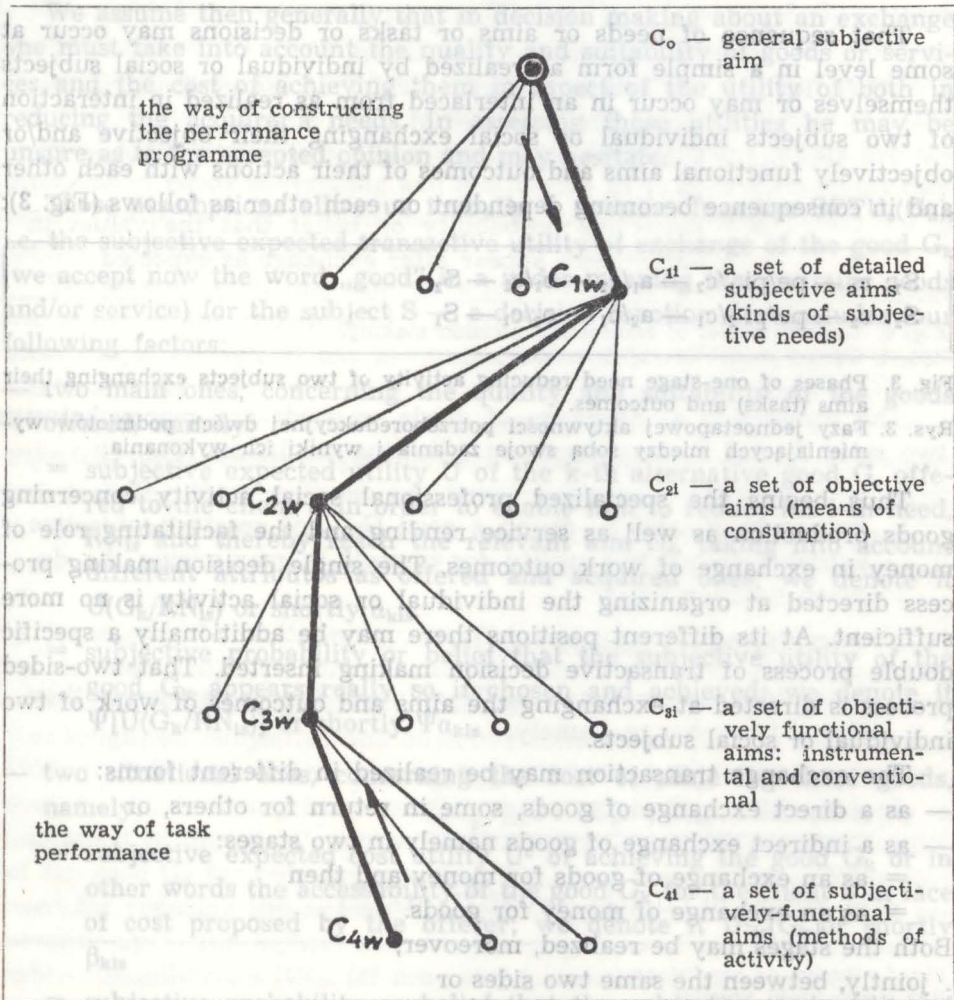

Fig. 2. A programme of multistage need reducig activity. The thick line indicates the after which the aim c_o will be reached (cf. Zimny, 1980.
Rys. 2. Program wieloetapowej aktywności potrzeboredukcyjnej.

then he has no problems to solve, he knows how to behave in a given situation in order to reach with certainty or with definite probability the accepted aim. So, at many stages the decisions are already more or less known to the subject, are controlled exactly or not, while at other levels they are just to be made.

The multistage process of decisions may be refered to cognitive decisions (what is the matter in the situation) and to performance decisions (how to react to the matter in the situation).

3. Genesis and forms of transactive decisions

That sequence of needs or aims or tasks or decisions may occur at some level in a simple form as realized by individual or social subjects themselves or may occur in an interlaced from as realized in interaction of two subjects individual or social exchanging their objective and/or objectively functional aims and outcomes of their actions with each other and in consequence becoming dependent on each other as follows (Fig. 3):

$$S_1: c_1 - pe/pi_1/c_2 - a_1/c_2 - o_1/c_2 - S_2$$
$$S_2: c_2 - pe/pi_2/c_1 - a_2/c_1 - o_2/c_1 - S_1$$

Fig. 3. Phases of one-stage need reducing activity of two subjects exchanging their aims (tasks) and outcomes.

Rys. 3. Fazy jednoetapowej aktywności potrzeboredukcyjnej dwóch podmiotów wymieniających między sobą swoje zadania i wyniki ich wykonania.

Thus begins the specialized professional social activity concerning goods production as well as service rending and the facilitating role of money in exchange of work outcomes. The single decision making process directed at organizing the individual or social activity is no more sufficient. At its different positions there may be additionally a specific double process of transactive decision making inserted. That two-sided process is directed at exchanging the aims and outcomes of work of two individual or social subjects.

The exchange transaction may be realized in different forms:
— as a direct exchange of goods, some in return for others, or
— as a indirect exchange of goods namely in two stages:
  = as an exchange of goods for money and then
  = as an exchange of money for goods.
Both the stages may be realized, moreover,
. jointly, between the same two sides or
. separately, each with another second side.

In the case of indirect exchange we shall call the side disposing goods and/or services — an offerer, and disposing money — a client.

4. The general model of transactive decision making

All decisions are based on our konwledge of the reality: the decision situations and tasks, and the realizations of those decisions change the reality itself independently of our knowledge of it. Thus not the objective quality of goods, their profitable price and achieving conditions determine the consumer's behaviour but the subjective perceiving those attributes (Kroeber Riel, 1980, p. 260) and yet perceiving them not as themselves but in their relations to the acquirer's attributes (his needs for them and possibilities of achieving them).

We assume then generally that in decision making about an exchange one must take into account the quality and suitability of goods or services and the cost of achieving them in aspect of the utility of both in reducing the acquirer's needs. In assessing those utilities he may be unsure as to the accepted opinion and may hesitate.

Those assumptions allow us to build a decision function $SETU_s(G_k)$, i.e. the subjective expected transactive utility of exchange of the good G_k (we accept now the word „good" in a wider meaning that contains goods and/or service) for the subject S — a decision function that includes four following factors:

— two main ones, concerning the quality and suitability of the goods offered, namely:

= subjective expected utility U of the k-th alternative good G, offered to the client S in order to enable him to reduce his i-th need, RN_{is} and thereby reach the relevant aim c_{is}, taking into account different attributes as offered and acquired ones; we denote it $U(G_k/RN_{is})$ or shortly α_{kis}.

= subjective probability or belief that the subjective utility of the good G_k appears really so if chosen and achieved; we denote it $\Psi[U(G_k/RN_{is})]$ or shortly $\Psi\alpha_{kis}$

— two situational ones, concerning the cost of achieving those goods, namely:

= subjective expected cost utility U^c of achieving the good G_k or in other words the accessability of the good G_k for the client S in face of cost proposed by the offerer; we denote it $U^c_{is}(G_k)$ or shortly β_{kis}

= subjective probability or belief that the subjective cost utility of achieving the good G_k appears really so as assessed if the transaction is effected; we denote it $\Psi[U^c_{is}(G_k)]$ or shortly $\Psi\beta_{kis}$

The proposed general model of transactive decision function SETU is then as follows (Fig. 4):

$$\hat{s} \; SETU_s(G_k) = \hat{s} \; [\alpha_{kis} \; \Psi(\alpha_{kis}) \; \beta_{kis} \; \Psi(\beta_{kis})]_{\substack{k=1 \dots n \\ s=1, 2}}$$

four model factors $\quad \underset{1}{|} \quad \underset{2}{|} \quad \underset{3}{|} \quad \underset{4}{|}$

$$U(G_k/Rn_{is}) \qquad U^c_{is}(G_k)$$

where

$SETU_s$ = subjective, expected transactive utility for the side S of transaction

G_k = the k-th alternative good G

$\hat{s}$ = for each side of transaction

$U(G_k/RN_{is})$ = subjective, expected utility of the good G_k for reducing the i-th need of client S, RN_{is},

$U^c_{is}(G_k)$ = subjective expected cost utility of achieving the good G_k

Ψ = subjective probability or belief that the values in parentheses appear after exchange as expected

Fig. 4. General model of transactive decision making.
Rys. 4. Ogólny model decyzji transakcyjnej.

The transaction as exchange of goods or goods and money between two sides S_1 and S_2 may occur on following conditions (Fig. 5):

1. Each side, S_1 and S_2, found a good $G_{k=a}$ of greatest subjective expected transactive utility for himself in maximizing the decision function SETU

$$\hat{s} \, SETU_s(G_a) = \hat{s} \, \max SETU_s(G_k)$$

2. Both sides find common SETU-value of the chosen goods they intend to exchange, namely:

if S_1: $SETU_{s1}(G_{a=1}) \geqslant SETU_{s1}(G_m)$ and
if S_2: $SETU_{s2}(G_1) \leqslant SETU_{s2}(G_{a=m})$

then

S_1 and S_2 $\quad SETU_{s1}(G_{a=1}) = SETU_{s2}(G_{a=m})$

Fig. 5. Exchange conditions.
Rys. 5. Warunki wymiany.

i.e. if both sides find such a decision function value for their goods chosen to be exchanged which could be acknowledged as equal for each of them.

5. The four factors of the general model

The first factor: the subjective expected utility of the good G_k for the client may be operationized by applying the well known multi-attribute utility assessment with its strategies to the essential attributes of the goods offered and acquired (Kozielecki, 1975, 1981, Łukasiak-Goszczyńska 1977, Coombs 1964, Dawes 1964, Einhorn 1970).

The attributes of the offered good G_k assessed as variables and their values are perceived by the client from the poinf of view of his needs. He assigns weights to those variables by mapping his need structure onto a linearly ordered weight structure. The utility of the good G_k is them a joint issue of all essential attributes and their weights. The strategy of joining them makes a problem reserved for the next paper. The offerer has also to recognize the need structure of his potential clients in order to draw their attention to the goods he is offering them. Those are the problems of goods advertising and acquisition as to their economical contents. The principles emphasized thereat by Kroeber-Riel (1980) are of special consequence.

The second factor: the subjective probability or the client's belief that the utility of the chosen good $G_{k=a}$ is really such as expected is a problem simple enough. It has to represent the grade of the client's uncertainty and hesitation. It lies in the offerer's interest to reduce that hesitation. He strives for reaching this aim by gaining famous trade mark enjoying high acknowledgement and trust and by sharing guaranties and realizing them without additional difficulties affecting the client.

The third factor: the subjective cost utility of achieving the good G_k is rather a new one. It consists of the relation of two subfactors, namely of:

1) the supply of client's energy, $E^a_{is}(G_k)$, that he can arrange for reducing his detailed subjective or objective or objectively-functional need RN_{is} of a higher level of generality than the need of achieving the good G_k just sought (cf subjective and objective contents of motives — Michotte, 1910, p. 210 ff.), in other words, the energetical cost of achieving the good G_k for reducing his need RN_{is} admitted by him. (That supply is dependent of the client's motivation strength, i.e. on the expected utility of the good G_k for reducing the need RN_{is}, and then of reduction of that need for reducing the needs of the next higher and higher level of generality up to the highest one, i.e. the reduction of his state of untolerable disequilibrium RN_{os} (cf near and far motives — Ach, 1935, p. 346), and

2) the supply of client's energy, $E^p(G_k)$, that is postulated from him by the offerer for allocating it in achieving the good G_k necessary for the

reduction of the need RN_{is}, in other words the postulated price of the good G_k and at the same time the proposed cost of achieving it. (The postulated price and/or proposed cost are, moreover, dependent on
— the magnitude of energy objectified in the good G_k in producing it and/or in acquiring it by the offerer,
— the relation of supply of the good G_k and/or of other substitutive ones and demand for them in a given market,
— the will or policy of offerer).

The relation between both subfactors making subjective cost utility of achieving the good G_k may be expressed on a continuous zero-one scale.

The fourth factor: the subjective probability or the client's belief that the subjective cost utility of achieving the good G_k will, after the transaction is effected, appear really so as assessed. It remains in the same relation to the cost utility of achieving the good G_k as the subjective probability of utility of that good to its utility. An expression of the client's uncertainty and hesitation also ought to find its place in it. If the prices are not stable the client's hesitation may influence the offerer to reduce the price in order to make it more fitting to the client's possibilities.

6. The third factor of the general model in detail

The third factor, i.e. the cost utility turned out to be the most interesting one. The cost factor was taken into account already by Nowakowska (1980) in her model of decision making between two alternatives: a certain one (of security) as maintaining „status quo" and an uncertain one (of risk) as investing in an innovation. That model respecting also the profit and loss factor is based on a combination of Savage's (1954) model SEU and Atkinson's (1963) model of motivation. It concerns, however, another decision situation and decision task.

At present, I would like to pay particular attention to and discuss in turn the subfactors already mentioned in the third factor in the general model SETU.

As to the first subfactor, i.e. the energetical cost $E^a = C^a$ admitted by the client as a price to be paid for achieving the needed good G_k, one can notice that:

The client has a definite state of his untolerable disequilibrium that causes the need for reducing it, denoted N_{os}, by reducing some subjective detailed needs, and subsequently objective needs and objectively--functional needs, denoted RN_{is}.

Each of those needs has a definite position of its generality and its power (extensiveness and intensiveness) in the general system of the

client's needs and aims. According to that position of a given need the reduction of it causes the reduction of general state of untolerable disequilibrium, $RN_{os} \mid RN_{is}$. The expected magnitude of that influence is a measure of subjective expected utility U of reducing the i-th need of subject S, $U(RN_{is})$, which may be expressed on the rational zero-one scale

$$U(RN_{is}) = \frac{RN_{os} \mid RN_{is}}{N_{os}} = \gamma \qquad \text{for } \gamma \ [0, 1]$$

where $U(RN_{is})$ — signifies expected utility U' of full reducing the i-th need of the subject S, RN_{is}, for reducing the state of untolerable disequilibrium

RN_{os} — expected reduction R of the general state of untolerable disequilibrium N_{os}

$RN_{os} \mid RN_{is}$ — on condition that

Each subject disposes some supply of energy E, living and objectified (in economical goods and money). That supply of energy $E(RN_{os})$ must suffice him for the indispensable reduction of his state of untolerable disequilibrium, RN_{os}. This being the case, each subject maps the system of his needs according to their power into the supply of his disposable energy and arranges for reducing each i-th need, RN_{is}, a corresponding part of the total supply. That part of one's energy is called admitted energy E^a in the meaning admitted to be laid out for reducing that need.

$$E^a(RN_{is}) = \delta E(RN_{os}) \qquad \text{for } \delta \ [0, 1]$$

Such a part of disposable energy supply corresponds with his expectancies as to the reduction degree of his state of untolerable disequilibrium by means of reducing the i-th need, RN_{is}. Thus

$$\left(\frac{RN_{os} \mid RN_{is}}{N_{os}} = \gamma \right) \Rightarrow \left(\frac{E^a(Rn_{is})}{E(RN_{os})} = \delta \right) \qquad \text{for } \gamma, \delta \ [0, 1]$$

The index δ corresponds with the index γ as to their magnitude. Thus

$$\delta = a\gamma$$

where „a" is a coefficient of proportionality.

The energy supply arranged for achieving some good G_k as means of reducing the need RN_{is} in proportional to the degree in which the good G_k participates in reducing the i-th need, then

$$E_{is}(G_k) = \alpha E(RN_{is}) = \alpha \delta E(RN_{os})$$

This amount of energy arranged by the client S for achieving the good G_k as fitting to reduce the i-th need, $E^a_{is}(G_k)$ constitutes the price of good G_k acceptable to the client S and hence the admitted energetical cost:

$$C^a_{is}(G_k) = p^a[E_{is}(G_k)] = E^a_{is}(G_k)$$

As to the second subfactor, i.e. the energetical cost $E^p = C^p$ proposed by the offerer E^p, as price to be paid for achieving the offered good G_k, one can notice that: the oferer put in the achievement of the good G_k already a supply of his energy $E(G_k)$ in and therefohe is entitled to exchange the good G_k for another one he wants, for example the good G_q, which comprises an analogical supply of objectified energy

$$E^o(G_q) = E^o(G_k)$$

We assume the prices p of those goods G_k and G_q are equal to one another and are corresponding to the magnitude of energy supply objectified in those goods, thus

$$p[E^o(G_k))] = bE^o(G_k)$$

where p signifies price

$E^o(G_k)$ — energy supply objectified in the good G_k

b — coefficient of proportionality

and consequently the cost of the good G_k proposed by the offerer to be borne by the client amounts to

$$C^p(G_k) = p[E^o(G_k)] = bE^o(G_k)$$

The offerer can, however, exchange the good G_k for the good G_q indirectly by means of money which has to enable him to get it in return. Then the price paid for the good G_q in money, $p_m(G_q)$ must include, moreover, the price of the supply of energy indispensible to find the needed good G_q, so analogically

$$p_m[E^o(G_k)] = bE^o(G_k) + dE'[A(G_q)]$$

where p_m signifies the price if paid in money

$E'[A(G_q)]$ — foreseen supply of energy indispensable for seeking and finding the good G_q

b, d — proportionality coefficients

The price of finding the needed good G_q (therein also of finding the offered good G_k again) is in turn dependent on the relation of demand and supply of those goods in a market and consequently on the risk of finding the sought good (let us suppose at a price not higher than $p[E'(G_k)]$, if the supply is not less than the demand). If the supply is greater than the demand such a risk does not exist, but being smaller, it does.

We assume that the subjective probability of finding the good G_q corresponds with the relation between its supply and demand

$$\Psi[A(G_q)] = \frac{s}{d}$$

where s signifies supply of a sought good in the market

d — demand for a sought good in the market

$A(G_q)$ — acquisition and finding the sought good G_q

Then the subjective probability of finding the good G_q accepts the value 1 for $s \geqslant d$ and

the values belonging to the interval $(0, 1)$ for $s < d$.

In consequence the subjective risk of finding the sought good G_q will be

$$1 - \Psi[A(G_q)] = 1 - \frac{s}{d}$$

Yet assuming that usually the taken into account price of seeking and finding a neeeded good, $E'[A(G_q)]$ is not greater than the price of the good sought itself, $E^o(G_q)$ equal to $E^o(G_k)$, we can define that price

$$E'[A(G_q)] = \langle 1 - \Psi[A(G_q)] \rangle \langle E'(G_k) \rangle$$

Then, the price of the good G_k or G_q paid in other goods or in money may be defined in general as

$$p[E^o(G_k)] = [E^o(G_k)] + \langle 1 - \Psi[A(G_q)] \rangle \langle E^o(G_k) \rangle =$$
$$= \langle 2 - \Psi[A(G_q)] \rangle \langle E^o(G_k) \rangle$$

and consequently the cost of the good G_k proposed to the client amounts

$$C^p(G_k) = p[E^o(G_k]$$

If the offerer's role is played by a great economical organization (state or trust) then the prices already justified can be changed at pleasure dependently on accepted principles of economical policy. Of course, such price regulations do not concern exchanges between individuals or between specialized firms.

As to the third factor, i.e. the subjective expected cost utility of achieving the good G_k or the relation of the admitted cost C^a_{is} to the proposed one C^p there is the following to be explained:

The proposed cost C^p may be higher, equal or lower than the admitted cost C^a_{is}

$$C^p \gtreqless C^a_{is}$$

Correspondingly we may talk about the cost utility U^c of achieving the good G_k for the reduction of i-th need of the client S, $U^c_{is}(G_k)$. If the proposed cost is greater than the addmitted one, $C^p > C^a_{is}$, then the

client may consider of increasing the admitted cost by delaying the reduction of other needs or abandoning them. But if the increased admitted cost, $C_{is}^{a+} > C_{is}^{a}$, that violates at a yet admissible degree the possibilities of reducing other needs, appears further on unsufficient, then the cost utility $U_{is}^{c}(G_k)$ of the good G_k takes the value zero.

On the other hand, if the proposed cost C^p of the good G_k appears equal to zero. i.e. the good is offered to the client gratis, then the cost utility $U_{is}^{c}(G_k)$ takes the value one.

For different proposed costs out of the interval $C^p(0, C_{is}^{a+})$ the cost utilities of goods $G_k/k = 1, 2 .../$, $U_{is}^{c}(G_k)$, take the values on the zero-one continuum scale in a manner as follows:

$$U_{is}^{c} G_k = 0 \quad \text{for} \quad C^p = C_{is}^{a+}$$

$$= \frac{1}{2} \quad \text{for} \quad C^p = C_{is}^{a}$$

$$= 1 \quad \text{for} \quad C^p = 0$$

All said about the third factor, i.e. the subjective expected cost utility in the meaning of minimizing the energy outlays for achieving some goods, may be summarized as follows (Fig. 6):

The third factor $U_{is}^{c}(G_k$ = subjective expected cost utility of achieving the good G_k consists in the relation of two subfactors

$U_{is}^{c}(G_k) = \varrho[E_{is}^{a}(G_k), E^p(G_k)]$

namely

$E_{is}^{a}(G_k)$ = energy supply E (living and/or objectified) admitted by the client S to be laid out for achieving the good G_k as fitting for reducing his i-th need, i.e. accepted price and admitted energetical cost of achieving the good G_k for reducing his i-th need

$E^p(G_k)$ = energy supply postulated by the offerer from the client to be laid out for achieving the good G_k, i.e. the proposed price and cost of the good G_k

moreover $E_{is}^{a}(G_k) = E^a(G_k/RN_{is}/RN_{os}) \Leftarrow U(G_k/RN_{is}/RN_{os})$

and $E^p(G_k) = E^o(G_k) + E'[A(G_q)]$

but assuming that $E'[A(G_q)] = (1 - \frac{s}{d})[E^o(G_k)]$

we obtain $E^p(G_k) = (2 - \frac{s}{d})[E^o(G_k)]$

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where

$E^o(G_k) =$ energy supply objectified by the offerer in the good G_k

$E'[A(G_q)] =$ energy supply foreseen by the offerer for finding the good G_q he wants to have in return of the offered good G_k

$s =$ supply of the sought good G_q

$d =$ demand for the sought good G_q

The values of the third factor may be expressed on a zero-one continuum scale taking into account following points

$$U^c_{is}(G_k) = 0 \text{ if } E^P(G_k) > E^{a+}_{is}(G_k)$$

$$= \frac{1}{2} \text{ } E^P(G_k) = E^a_{is}(G_k)$$

$$= 1 \text{ if } E^P(G_k) = 0$$

where $E^{a+}_{is}(G_k) =$ the utmost energy that may be still arranged for achieving the good G_k and reducing the respective need after having abandoned reduction of some others.

Fig. 6. The third factor of the general model of transactive decision making.
Rys. 6. Trzeci czynnik ogólnego modelu decyzji transakcyjnej.

Discussion of the proposed model

The simplest and, at the same time, the most convincing way of composing the four presented factors of subjective expected transactive utility $SETU_s(G_k)$ into a general decision function seems to be here a multiplicative one.

The factors $\alpha_{kis} \cdot \Psi\alpha_{kis}$ define jointly the true degree of expected reduction of the need N_{is} by means of the good G_k, and the factors $\beta_{kis} \cdot \Psi\beta_{kis}$ — the true relation of proposed costs of achieving the good G_k to admitted ones.

The subjective probabilities or beliefs have to mark the uncertainty and hesitation in the client's assessment of respective utilities.

The role of reducing of client's need RN_{is} for the reduction of his general state of untolerable disequilibrium RN_{os} does not appear in the model directly, but it does indirectly by means of determining the magnitude of admitted cost of achieving the good G_k.

The two relations $U(G_k/RN_{is})$ and $U(RN_{is}/RN_{os})$ taken jointly as $U(G_k/RN_{os})$ define the client's motivation strength in the specified situation.

In an interection leading to transaction, especially in the case of direct goods exchange, each side of transaction knows his own motivation strength, but does not know that of the other side. And the relation of needs and possibilities (internal and external) of both sides determines their interaction process and transaction outcomes, what for what might be exchanged. In consequence each side sues for receiving the lacking information about the other side. The relevant interviews, however, as well as different ways of applying their results yield us already problems of another range.

The cost utility, in the meaning introduced here, consists in minimizing the outlays for achieving consumer goods as means for reducing the client's objective needs.

We may, however, speak also about a cost utility consisting in maximizing the profitability of outlays for achieving some work or production means for reducing the client's objectively-functional needs.

Both the meanings of cost utility may coexist. The first is fitting-chiefly in individual transactions, and the second — chiefly in institutional ones.

Conclusion

The presented proposition of the general model of transactive decision making is of initial character. It takes further studies on its detailed operationization in order to reach a form suitable to verify in empirical researches.

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Teoria i model podejmowania decyzji transakcyjnych

STRESZCZENIE

Działanie człowieka wynika z potrzeby przywracania ustawicznie naruszanej względnej równowagi oddziaływania jego organizmu z otoczeniem i jest świadomie ukierunkowane na zredukowanie tej nierównowagi. Decyzja podjęcia realizacji tak ogólnie i podmiotowo określonego celu działania pociąga konieczność podjęcia kolejnych decyzji wytyczających program działania, w szczególności wymaga podjęcia decyzji określających cel podmiotowy szczegółowy jako podmiotową przyczynę nierównowagi, którą należy usunąć, cel przedmiotowy jako środek bezpośredni (konsumpcyjny), za pomocą którego można i należy tę przyczynę usunąć, cel przedmiotowo-funkcjonalny jako środek instrumentalny lub konwencjonalny, za pomocą którego można i należy zdobyć bezpośredni środek konsumpcyjny, wreszcie cel podmiotowo-funkcjonalny jako dostępny sposób, w który można i należy posłużyć się środkiem instrumentalnym lub konwencjonalnym, a następnie konsumpcyjnym, aby usunąć podmiotową przyczynę nierównowagi.

Niewiele jest sytuacji, w których człowiek może zredukować stan odczuwanej nierównowagi swego organizmu samodzielnie bez niczyjego współudziału. Przy obecnej organizacji życia społecznego środki konsumpcji, jak i środki instrumentalne lub konwencjonalne, pozyskuje się zwykle w drodze transakcji z innymi ludźmi na zasadzie wymiany dóbr, tj. rzeczy albo usług w zamian za inne rzeczy albo usługi, lub w zamian za pieniężne równoważniki wartości tych rzeczy albo usług według oceny tej wartości przez oferenta (sprzedającego) oraz przez klienta (kupującego).

Ogólny model decyzji transakcyjnej, tj. decyzji dwustronnej o wymianie dóbr obejmuje dla każdej ze stron s_1 i s_2:
1. maksymalizację wartości funkcji decyzyjnej SETU (G_k) tj. subiektywnie oczekiwanej użyteczności transakcyjnej dobra G_k, prowadzącą do wyboru dobra G_k, które chce się w drodze wymiany osiągnąć pod określonym warunkiem:

$$SETU(G_k) = (\alpha_{kis} \cdot \Psi \alpha_{kis} \cdot \beta_{kis} \cdot \Psi \beta_{kis}) \begin{smallmatrix} k=1 \dots n \\ s=1, 2 \end{smallmatrix}$$

gdzie:

α_{kis} — oznacza subiektywną oczekiwaną użyteczność U dobra G_k dla redukcji i-tej potrzeby strony s, $U_{is}(G_k)$,

$\Psi\alpha_{kis}$ — subiektywne prawdopodobieństwo albo przekonanie, że oczekiwana użyteczność U dobra G_k, $U_{is}(G_k)$, okaże się trafna po dokonaniu wymiany,

β_{kis} — subiektywną oczekiwaną użyteczność kosztu U_c osiągnięcia dobra G_k, $Uc_{is}(G_k)$, czyli subiektywną oczekiwaną opłacalność wydatku na osiągnięcie dobra G_k,

$\Psi\beta_{kis}$ — subiektywne prawdopodobieństwo albo przekonanie, że oczekiwana użyteczność kosztu U_c osiągnięcia dobra G_k, okaże się trafna po dokonaniu wymiany,

2. znalezienie wspólnej, obustronnie jeszcze akceptowalnej wartości funkcji decyzyjnej SETU(G_k), które warunkuje wymianę dóbr G_k. Warunki wymiany mogą być przez jedną ze stron ustalone z góry albo nie. Jeśli nie i jeśli obydwie strony są zainteresowane daną transakcją, to znalezienie wspólnej i obustronnie jeszcze akceptowalnej wartości funkcji SETU(G_k) pociąga problem strategii rozpoznania wielkości potrzeb i możliwości drugiej strony w relacji do wielkości potrzeb i możliwości własnych czyli rozpoznania relacji stopni zainteresowania daną transakcją obu stron. Problem ten odłożono do osobnego potraktowania.

Artykuł zawiera omówienie kolejnych czynników funkcji decyzji SETU(G_k) ze szczególnym uwzględnieniem czynnika trzeciego, tj. subiektywnej oczekiwanej użyteczności kosztowej dobra G_k jako czynnika charakterystycznego dla funkcji SETU(G_k).

Koncepcja wymaga dopracowania i doprowadzenia do pełnej operacjonalizacji.