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Determining Weight of Known Evaluation Criteria in the Field of Mehr Housing using ANP Approach

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ABSTRACT

According to considerable increase in house price especially in recent years, organizations and departments are trying to resolve this need at least in their employees. Based on this fact, in many of organizations, units or better to say companies called cooperation housing companies are established which try to resolve this need in their staffs. On the other hand, organizations are analyzing and evaluating their performance continuously. But this kind of evaluation is not correct because of relatively high economic turbulence in recent years and so regression and improving of organizations or companies are not done correctly. And also this evaluation has to be in comparison with opponents to be more reliable. In this paper, based on these facts, at first experts opinion and performed researches in this field have been identified and then with establishment of communication network among these criteria, using the ANP (Analytic Network Process) model. We have evaluated and weighted these criteria and ultimately, suggestions have been proposed in order to improve efficiency of evaluation criteria and also Mehr housing cooperation.

Keywords
Mehr Housing Cooperative, Evaluation Criteria, Matrix of Paired Comparisons, ANP Model.

1. INTRODUCTION

In the modern era, considerable developments in management science, existing evaluation network is unavoidable so that lack of evaluation network in different dimensions of organization include using resources and facilities, staffs, objectives and strategies is considered as one of symptoms of organization illness.

Each organization in order to know utility average and quality of his activities especially in complicated and active environment, has an urgent needs to evaluation network. On the other hand, lack of control and evaluation network in one system means lack of communication with internal and external environment which its consequences are oldness and finally organization death. It's possible that incidence of organization death is not felt by organization top managers due to not sudden occurrence. So, studies show that lack of feedback network makes possibility of necessity reform for growth and improvement in organization activities, impossible. The consequence of this phenomenon is organization death Performance evaluation matter has challenged researchers and users for many years. In the past, Trade organizations were considering financial indicators as performance evaluation instrument Until Kaplan & Norton in early 80 decade, after investigation and evaluation of management systems, revealed many of inefficiencies of this information for performance evaluation in organizations that this inefficiency is resulted from increase in organization complication, environment mobility and market competition.(Kaplan & Norton,1992) .

Current research using ANP method and having mentioned approach identifies functional dimensions of active housing cooperation companies in Arak city and determines importance of each effective factor.

2. RELATED WORKS

2.1 ANP model:

The ANP is the generalization of the AHP. ANP includes the AHP as a special case and can be used to treat more sophisticated decision problems than the AHP. The ANP makes possible to deal systematically with all kinds of dependence and feedback in a decision system. The ANP is a coupling of two parts. The first consists of a control hierarchy or network of criteria and sub-criteria that control the interactions in the system under study. The second is a network of influences among the elements and clusters (Saaty, 2001). A decision problem that is analyzed with the ANP is often studied through a control hierarchy or network. A decision network is structured of clusters, elements, and links. A cluster is a collection of

relevant elements within a network or sub-network. For each control criterion, the clusters of the system with their elements are determined. All interactions and feedbacks within the clusters are called inner dependencies whereas interactions and feedbacks between the clusters are called outer dependencies (Saaty, 1999). Inner and outer dependencies are the best way decision-makers can capture and represent the concepts of influencing or being influenced, between clusters and between elements with respect to a specific element. Then pairwise comparisons are made systematically including all the combinations of element/cluster relationships. ANP uses the same fundamental comparison scale (1-9) as the AHP. This comparison scale enables the decision-maker to incorporate experience and knowledge intuitively (Harker and Vargas, 1990) and indicate how many times an element dominates another with respect to the criterion. It is a scale of absolute (not ordinal, interval or ratio scale) numbers. The decision maker can express his preference between each pair of elements verbally as equally important, moderately more important, strongly more important, very strongly more important, and extremely more important. These descriptive preferences would then be translated into numerical values 1, 3, 5, 7, 9, respectively, with 2, 4, 6, and 8 as intermediate values for comparisons between two successive judgments. Reciprocals of these values are used for the corresponding transposed judgments.

2.2 Mehr Housing Scheme:

As of January 2011, the banking sector, particularly Bank Maskan has given loans up to 102 trillion rials ($10.2 billion) to applicants of Mehr housing project. Under this scheme real estate developers are offered free lands in return for building cheap residential units for first-time buyers on 99-year lease contracts. The government then commissioned agent banks to offer loans to the real estate developers to prepare the lands and begin construction projects in an attempt to increase production and create equilibrium in the supply and demand curve (2008). Close to 400,000 units have been built and permits have been issued for another 12,000.[11] Mehr Housing project is expected to provide 600,000 residential units in its first phaseAbout 3.7 million people have so far registered for Mehr Housing Plan (2008). About 10 million rials is to be paid by applicants for preparing the land and another 10 million to be given by the government in the form of banking facilities. Applicants should pay about 20 percent of the construction costs. In addition, about 140 million rials worth of housing loans will be granted to them (10,000 rials=1 USD in 2008).[12] While most Iranians have difficulties obtaining small home loans, 90 persons have managed to secure collective facilities totaling $8 billion from banks.[12]

3. METHODOLOGY

3.1 Choosing criteria of performance evaluation:

Basis of each evaluation is criteria which we assess studied cases. So, it is necessary to obtain evaluation indicators by studying pervious researches, current papers in this field and also consulting with experts. So that in this research, we have done all kinds of mentioned process and we finally identify 14 criteria in the field of housing cooperation which have been used in this research.

Criteria

1-The amount of state funds (mortgage) allocated to each applicant.
2- Number of cooperative members.
3- Average of participation of cooperative members (number of meeting hours during one month).
4- Number of replaced managers during project.
5- Cooperative member education (language variable).
6- First charge of each member.
7-Monthly carrying charges (without considering mortgage).
8- Final cost of each square meter of residential apartments (total payment divide by measurement of each apartment).
9- During of time preparing each apartment (Days ofthe projectdivided by the numberof apartments).
10- Number of apartments in each flat.
11- Measurement of each apartment.
12-Condominium rate based on square meter.
13- Number of built blocks.
14- Number of people in reservation list of each company.

3.2 Clustering criteria:

After determining criteria, in order to weight them, communication network among criteria has to be established so that we can rank criteria using ANP technique. Criteria network and their influences on each other and also amount of these effects are as following:

Cluster1: Housing criteria

A1: The amount of state funds (mortgage) allocated to each applicant.

A2: During of time preparing each apartment (Days ofthe projectdivided to the numberof apartments).

A3: Number of apartments in each flat.

A4: Measurement of each apartment.

A5: Condominium rate based on square meter.

A6: Number of built blocks.

A7: Final cost of each square meter of residential apartments (total payment divide to measurement of each apartment).

Cluster2: Company criteria

B1: Number of cooperative members.

B2: Average of participation of cooperative members (number of meeting hours during one month).

B3: Number of replaced managers during project.

B4: Number of people in reservation list of each company.

Cluster3: Member criteria

C1: First charge of each member.

C2: Monthly carrying charges (without considering mortgage).

C3: Cooperative member education (language variable).

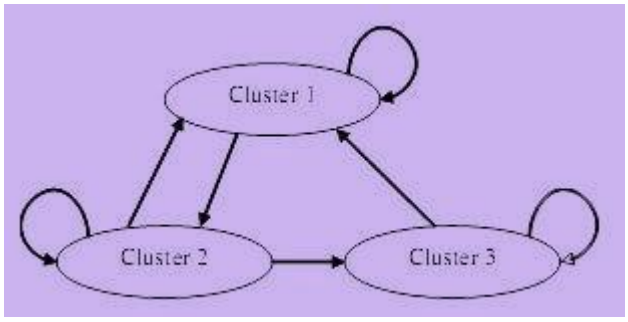

Figure 1: Communication network of criteria.

3.3 Example of paired comparison matrixes, calculating consistency Rate:

To obtain weights,Geometric Mean method [13] has been used. For example, to calculate weight in the first matrix, following steps have been done [14]:

Matrix1: Sample Paired comparison matrix.

C 1	A1	A2	A3	A4	A5	A6	A7
A1	1	3	5	5	7	7	3
A2	0.333	1	5	3	5	5	1
A3	0.200	0.200	1	1	1	1	0.333
A4	0.200	0.333	1	1	1	3	0.333
A5	0.143	0.200	1	1	1	1	0.143
A6	0.143	0.200	1	0.333	1	1	0.143
A7	0.333	1	3	3	7	7	1

As we can see in figure 1, cluster 3 has effect on cluster 1. So as an example paired comparison matrix of cluster 1 with 7 criteria and their effects based on first criterion of cluster 3 are mentioned in above matrix and in next step, obtained weights are calculated.

$$W1 = \sqrt[7]{[1 * 3 * 5 * 5 * 7 * 7 * 3]} = 3.780$$

$$W2 = \sqrt[7]{[0.333 * 1 * 5 * 3 * 5 * 5 * 1]} = 1.993$$

$$W3 = \sqrt[7]{[0.200 * 0.200 * 1 * 1 * 1 * 1 * 0.333]} = 0.540$$

$$W4 = \sqrt[7]{[0.200 * 0.333 * 1 * 1 * 1 * 3 * 0.333]} = 0.679$$

$$W5 = \sqrt[7]{[0.143 * 0.200 * 1 * 1 * 1 * 1 * 0.143]} = 0.456$$

$$W6 = \sqrt[7]{[0.143 * 0.200 * 1 * 0.333 * 1 * 1 * 0.143]} = 0.390$$

$$W7 = \sqrt[7]{[0.333 * 1 * 3 * 3 * 7 * 7 * 1]} = 2.040$$

Weight:
3.780
1.993
0.540
0.679
0.456
0.390
2.040

$Sum\ [W1 + W2 + W3$

Sum:	9.877

In next step, obtained weights are normalized so that:

$$WN1 = \frac{3.780}{9.877} = 0.383 \qquad WN2 = \frac{1.993}{9.877} = 0.202$$

$$WN3 = \frac{0.540}{9.877} = 0.55 \qquad WN4 = \frac{0.679}{9.877} = 0.069$$

$$WN5 = \frac{0.456}{9.877} = 0.046 \qquad WN6 = \frac{0.390}{9.877} = 0.039$$

$$WN7 = \frac{2.040}{9.877} = 0.207$$

Norm. W.
0.383
0.202
0.055
0.069
0.046
0.039
0.207

To calculate consistency rate in the first matrix, we are doing following steps and Excel software has been used that is considered as an example:

Matrix2: Paired comparison matrix with vertical sum

C 1	A1	A2	A3	A4	A5	A6	A7
A1	1	3	5	5	7	7	3
A2	0.333	1	5	3	5	5	1
A3	0.200	0.200	1	1	1	1	0.333
A4	0.200	0.333	1	1	1	3	0.333
A5	0.143	0.200	1	1	1	1	0.143
A6	0.143	0.200	1	0.333	1	1	0.143
A7	0.333	1	3	3	7	7	1
Sum:	2.352	5.933	17.000	14.333	23	25.000	5.952

$$Sum\ R1\ [1 + 0.333 +$$
$$Sum\ R2\ [3 + 1 + 0.2 +$$
$$Sum\ R3\ [5 + 5 + 1 +$$
$$Sum\ R4\ [5 + 3 + 1 +$$
$$Sum\ R5\ [7 + 5 + 1 +$$
$$Sum\ R6\ [7 + 5 + 1 +$$
$$Sum\ R7\ [3 + 1 + 0.33$$
$$hmax = [\frac{0.383}{2.352} + \frac{0.2}{5.9}$$
$$= 7.288$$

$$C.I. = \frac{7.288 - 7}{6} = 0.0$$
$$C.R. = \frac{0.048}{1.32} = 0.036$$

Table 1: Consistency Index and Consistency Ratio of example matrix

fi max:	Reasonable and Acceptable analysis:
0.900	
1.197	C.I.(Consistency Index)
0.929	0.048
0.986	C.R. (Consistency Ratio)
1.061	0.036
0.986	
1.229	Consistency Threshold:
7.288	0.1 Consistence

Because of this matter that consistency is less than 0.1, so paired comparison matrix is consistent and obtained weights can be used in next steps and can be put in super matrix.

3.4 Performing ANP methodology

To obtain weights by paired comparison matrixes,the eigenvectors of each matrix are put in matrix and ANP super matrix of communication network is established. That is visible in matrix number 3.

Matrix 3: Super matrix (eigenvectors of each matrix)

	A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	B4	C1	C2	C3
A1	1	0	0	0	0	0	0	0.22	0.32	0.33	0.16	0.38	0.36	0.19
A2	0	1	0	0	0	0	0	0.19	0.19	0.14	0.20	0.20	0.11	0.22
A3	0	0	1	0	0	0	0	0.12	0.07	0.07	0.20	0.05	0.06	0.06
A4	0	0	0	1	0	0	0	0.09	0.09	0.09	0.07	0.07	0.09	0.06
A5	0	0	0	0	1	0	0	0.06	0.05	0.06	0.06	0.05	0.08	0.06
A6	0	0	0	0	0	1	0	0.05	0.04	0.05	0.04	0.04	0.04	0.06
A7	0	0	0	0	0	0	1	0.27	0.23	0.26	0.27	0.21	0.25	0.33
B1	0.24	0.41	0.40	0.31	0.22	0.47	0.57	1	0	0	0	0	0	0
B2	0.31	0.11	0.12	0.24	0.32	0.14	0.13	0	1	0	0	0	0	0
B3	0.31	0.41	0.40	0.31	0.38	0.28	0.20	0	0	1	0	0	0	0
B4	0.14	0.06	0.09	0.14	0.08	0.11	0.10	0	0	0	1	0	0	0
C1	0	0	0	0	0	0	0	0.54	0.63	0.16	0.48	1	0	0
C2	0	0	0	0	0	0	0	0.30	0.24	0.46	0.17	0	1	0
C3	0	0	0	0	0	0	0	0.16	0.14	0.38	0.35	0	0	1
Sum	2	2	2	2	2	2	2	3	3	3	3	2	2	2

In this step, we normalize super matrix using following formula in order to be able to calculate criteria weight.

Linear normalization [15,16]:

$$r_{ij} = \frac{x_{ij}}{\sum_{i=1}^{m} x_{ij}},$$
$$i = 1, \dots, m; j = 1, \dots, n.$$

Matrix4: Normalized super matrix using linear normalization.

A1	0.50	0	0	0	0	0	0	0.07	0.11	0.11	0.05	0.19	0.18	0.10
A2	0	0.50	0	0	0	0	0	0.06	0.06	0.05	0.07	0.10	0.05	0.11
A3	0	0	0.50	0	0	0	0	0.04	0.02	0.02	0.07	0.03	0.03	0.03
A4	0	0	0	0.50	0	0	0	0.03	0.03	0.03	0.02	0.03	0.05	0.03
A5	0	0	0	0	0.50	0	0	0.02	0.02	0.02	0.02	0.02	0.04	0.03
A6	0	0	0	0	0	0.50	0	0.02	0.01	0.02	0.01	0.02	0.02	0.03
A7	0	0	0	0	0	0	0.50	0.09	0.08	0.09	0.09	0.10	0.13	0.17
B1	0.12	0.21	0.20	0.16	0.11	0.24	0.29	0.33	0	0	0	0	0	0
B2	0.16	0.05	0.06	0.12	0.16	0.07	0.07	0	0.33	0	0	0	0	0
B3	0.16	0.21	0.20	0.16	0.19	0.14	0.10	0	0	0.33	0	0	0	0
B4	0.07	0.03	0.05	0.07	0.04	0.05	0.05	0	0	0	0.33	0	0	0
C1	0	0	0	0	0	0	0	0.18	0.21	0.05	0.16	0.50	0	0
C2	0	0	0	0	0	0	0	0.10	0.08	0.15	0.06	0	0.50	0
C3	0	0	0	0	0	0	0	0.05	0.05	0.13	0.12	0	0	0.50

As following, super matrix will be powered using Matlab software [17] to reach same numbers. To do this, once matrix is powered to 8 and then is powered to 9 and finally we get averaged of these two matrixes to reach stable state of repetition and this average matrix is considered as a final weight that is shown to 3 decimal figures as follows:

Matrix5: Normalized super matrix powered to 8.

A1	0.140	0.131	0.131	0.131	0.132	0.131	0.131	0.132	0.134	0.132	0.131	0.134	0.134	0.128
A2	0.078	0.081	0.077	0.078	0.078	0.078	0.078	0.079	0.079	0.078	0.079	0.079	0.077	0.080
A3	0.035	0.035	0.039	0.036	0.035	0.036	0.036	0.036	0.036	0.036	0.037	0.035	0.036	0.036
A4	0.037	0.037	0.037	0.041	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.038	0.037
A5	0.026	0.026	0.026	0.026	0.030	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.027	0.026
A6	0.020	0.020	0.020	0.020	0.020	0.024	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020
A7	0.112	0.113	0.112	0.112	0.112	0.112	0.116	0.113	0.112	0.114	0.114	0.112	0.113	0.116
B1	0.126	0.128	0.128	0.127	0.125	0.129	0.130	0.127	0.127	0.128	0.128	0.126	0.127	0.129
B2	0.068	0.065	0.065	0.067	0.068	0.066	0.066	0.066	0.067	0.067	0.066	0.067	0.068	0.065
B3	0.103	0.104	0.104	0.103	0.104	0.103	0.102	0.103	0.103	0.103	0.103	0.103	0.103	0.102
B4	0.036	0.035	0.035	0.036	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.036	0.035
C1	0.096	0.094	0.094	0.096	0.096	0.096	0.097	0.096	0.097	0.094	0.096	0.098	0.095	0.094
C2	0.071	0.072	0.072	0.071	0.072	0.071	0.071	0.071	0.071	0.072	0.070	0.070	0.074	0.070
C3	0.054	0.055	0.055	0.054	0.054	0.054	0.053	0.053	0.053	0.055	0.055	0.053	0.053	0.057

Matrix6: Normalized super matrix powered to 9.

A1	0.134	0.131	0.131	0.132	0.132	0.131	0.131	0.132	0.132	0.132	0.131	0.133	0.133	0.127
A2	0.078	0.080	0.078	0.078	0.078	0.078	0.078	0.078	0.079	0.078	0.079	0.079	0.078	0.079
A3	0.036	0.036	0.038	0.036	0.035	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036
A4	0.037	0.037	0.037	0.039	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
A5	0.026	0.026	0.026	0.026	0.028	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.026
A6	0.020	0.020	0.020	0.020	0.020	0.022	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020
A7	0.113	0.113	0.113	0.113	0.113	0.113	0.114	0.113	0.113	0.114	0.113	0.112	0.113	0.115
B1	0.127	0.127	0.127	0.127	0.126	0.128	0.128	0.127	0.127	0.128	0.128	0.127	0.127	0.129
B2	0.067	0.066	0.066	0.067	0.067	0.066	0.066	0.066	0.067	0.067	0.066	0.067	0.067	0.066
B3	0.103	0.103	0.103	0.103	0.103	0.103	0.102	0.103	0.103	0.103	0.103	0.103	0.103	0.102
B4	0.036	0.035	0.035	0.036	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.036	0.035
C1	0.096	0.095	0.095	0.096	0.096	0.096	0.097	0.096	0.097	0.095	0.096	0.097	0.095	0.095
C2	0.071	0.072	0.072	0.071	0.071	0.071	0.071	0.071	0.071	0.072	0.071	0.071	0.072	0.071
C3	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.055	0.055	0.054	0.054	0.055

Matrix7: Final super matrix (average of matrix 8 and 9)

A1	0.131	0.131	0.131	0.131	0.132	0.131	0.131	0.132	0.133	0.132	0.131	0.134	0.133	0.129
A2	0.078	0.081	0.078	0.078	0.078	0.078	0.078	0.078	0.079	0.078	0.079	0.079	0.077	0.080
A3	0.036	0.035	0.038	0.036	0.035	0.357	0.036	0.036	0.036	0.036	0.036	0.035	0.036	0.036
A4	0.037	0.037	0.037	0.040	0.037	0.369	0.037	0.037	0.037	0.037	0.037	0.037	0.038	0.037
A5	0.026	0.026	0.026	0.026	0.029	0.258	0.026	0.026	0.026	0.026	0.026	0.026	0.027	0.026
A6	0.020	0.020	0.020	0.020	0.020	0.023	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020
A7	0.112	0.113	0.113	0.112	0.112	0.113	0.115	0.113	0.113	0.114	0.114	0.112	0.113	0.115
B1	0.126	0.128	0.127	0.126	0.126	0.128	0.129	0.127	0.127	0.128	0.128	0.126	0.127	0.129
B2	0.068	0.066	0.066	0.068	0.068	0.066	0.066	0.066	0.067	0.067	0.066	0.067	0.067	0.065
B3	0.103	0.103	0.103	0.103	0.103	0.103	0.102	0.103	0.103	0.103	0.103	0.103	0.103	0.102
B4	0.036	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.036	0.035
C1	0.096	0.094	0.095	0.096	0.096	0.096	0.097	0.096	0.097	0.095	0.096	0.097	0.095	0.095
C2	0.071	0.072	0.072	0.071	0.071	0.071	0.071	0.071	0.071	0.072	0.071	0.070	0.073	0.070
C3	0.054	0.055	0.055	0.054	0.054	0.054	0.053	0.054	0.036	0.055	0.055	0.053	0.053	0.056

5. RESULTS

Therefore, criteria weights which have been obtained from the first column of final super matrix (matrix7) are equivalent to:

Table 2: Criteria weights (based on first column of matrix 7)

Content	Criteria name	Weight
A1	The amount of state funds (mortgage) allocated to each applicant.	0.131
A2	During of time preparing each apartment (Days ofthe projectdivided to the numberof apartments).	0.078
A3	Number of apartments in each flat.	0.036
A4	Measurement of each apartment.	0.037
A5	Condominium rate based on square meter.	0.026

A6	Number of built blocks.	0.020
A7	Final cost of each square meter of residential apartments (total payment divide to measurement of each apartment).	0.112
B1	Number of cooperative members.	0.126
B2	Average of participation of cooperative members (number of meeting hours during one month).	0.068
B3	Number of replaced managers during project.	0.103
B4	Number of people in reservation list of each company.	0.036
C1	First charge of each member.	0.096
C2	Monthly carrying charges (without considering mortgage).	0.071
C3	Cooperative member education (language variable).	0.055

6. CONCLUSIONS

To other researchers who want to use this method in their researches also it is suggested to use Data mining methods and the meta-heuristic algorithms in order to predict future criteria which can have effect on cooperation housing projects and also for weighting these criteria. So they can compare their results with ours and also obtain more reliable results and use them to prevent unexpected problems. After finishing this research and achieving final list of Mehr housing cooperative, criteria and ranking them in Arak city which have been mentioned previously, factors which have been involved in success or lack of success in number of these cooperative housing companies based on known criteria in this research are identified so that other cooperative housing companies based on these principles , try to resolve their disadvantages and reinforcement their advantages in order to show higher efficiency in the future. One of the prerequisite for a successful cooperative is that members and directors receive adequate training. The process of developing and operating a cooperative can be complex. Finance (annual audits, monthly financial statements, finance mechanisms for housing); management (parliamentary procedure. personnel matters); and the philosophies of cooperation are but a few area s in which members should have some knowledge. Training programs must also make members aware of their rights, responsibilities and obligations within the cooperative organization bylaws, and house policies. The Involvement of members does not end with the development process. Members have both a right and a responsibility to be informed about and involved in the operation of their cooperative. Although, directors have authority to make many decisions on behalf of the members whom elected them. They should not act autonomously. Directors should work with members in developing a consensus or vision on how the cooperative is run.

Once the cooperative is fully occupied and operational, it must begin accumulating sufficient reserves to take care of contingencies. Unexpected breakdown of equipment, uninsured property losses, a sudden increase in the property tax bill . All lead to expenses which cash reserves are needed. Sound financial planning calls for adequate financial reserves to be built up year by year, so that as a building's plumbing, roof, or other systems wear out, the cooperative can afford to replace them.

A budget is a plan for the cooperative's expected resources and expenditures over a given period. Operating budgets are usually developed for a 1yaer period, while capital budgets are more long-range. A housing cooperative's budget is developed by its treasurer, the finance committee, the board and manager, and sometimes the entire membership. Approval of a cooperative's annual budget usually rests with the board directors, although in some cooperatives, members may approve the budget based on a recommendation from the board.

While many issues surface in managing cooperative housing, some issues may be recurring. To save time and promote consistency, clear policies should be developed on how to deal with these matters. While some of these rules may be included in the bylaws, usually they will appear as policies in the house policy manual. The purpose of house rules and policies is not to put unnecessary burdens on individual members. Although the cooperative may decide what issues to include in its house policies, several important areas should be covered either in the bylaws or house policies.

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