IDENTIFY AND PRIORITIZE THE FACTORS INFLUENCING SELECTION OF OFFICE AUTOMATION SOFTWARE USING AHP AND SAW TECHNIQUES

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Abstract:

Today,administrativesystems, global systems that are their main task is to build relationships and improve communication. Communication of commercial information is important and your organization's survival and continued their activities with these organizations to competitive information age, communication tools, ie information systems and information technology.

Inthe1960s that more aspects of the application and the administrative and commercial activities beganto spread, despite the huge volume of information that an integrated system of appropriate administrative, include correspondence wasclearlyfelt. This article discusses the different world of office automation systems to express the importance of information and information systems, development and evolution of information systems and office automation systems and ergonomic advantages and disadvantages of office automation and office automation system deals with different types of information systems is

Afteranalyzing thequestionnaires, the finalcriteriawere identifiedanda secondquestionnairewas preparedincludingtables ofcomparativedata fromZhuJanditscriteriaforratingcriteriawere used. TheAHPmethod,the resultsindicatethat thegeneralfeaturesofthesystem, system management, facilitieslist,Dashboards, editablein theEditor,scanningand archivingis importantinchoosing the bestoffice automationsoftware.

Key words: Decision making, decision analysis, MCDM, office automation

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39

Introduction:

With the increasing emergence of different forms of communication and the flow of communication, communication networks and trade in all affairs of life that pervades all parts of the world in different ways (production of goods or services) can be seen from this case is no exception.

With more sophisticated commercial communications, organizations of losing one of the sources of input (data) inevitably began to develop within their systems to make optimum use of the information in their surroundings and with appropriate processing, the data to customer satisfaction and enables them to offer.

Indeed, competitive business environment and changes in the environment of the 1990s(economic globalization of economies and societies into industrial and service economy based on knowledge and information), information systems need to be doubled. For that discussion of office automation systems that are typical of the types of information systems becomes more important every day, as today, organizations can often its highestreadinessto deal withlocalenvironmental changesandseethathigh degree of automationhavebenefited. What aretheoffice automation systems? Whatare theadvantages and disadvantages? Real needtodevelopandbuildwhat theyhave? Whattypesofapplicationsorsubsystems? Whatisdifferent fromotherinformation systems? And...

1- **Theissue**

2- Today Brgrdsh management and administrative work and correspondence, as well as time management in organizations and institutions has changed, and the technique of general economic and administrative problems Ghyrmkanyz·h is not acceptable.

The high volume ofcorrespondenceandaccesstoinformation, officials and administrators who value their time management under his leadership, has ledtheoffice automationinvarious dimensions. Office automation, the besttool to achieveagoodworkinorder tosavetimeandoptimum use oftimeintheorganization. Mechanizedsolutionto theflowofcorrespondence,curingandalsoto managetheworkflowmakesMysrmy. Inthis process, eliminatingpapercorrespondence, conservationandoptimum use oftime, bepractical. Official CorrespondenceGhyrmkanyz·hportionsofthe administrative systemand causeproblems such

astime-based organizations, non-flow control and monitoring of correspondence and Brmkatbatand...Be. These problems will be referred to the following outline:

- Hasaccessto thewritingofthe timeonadministrativeprocesses
- Recordsandthelackoforganizationand lack ofasuitabletoolfortermfollow-upletters
- Reportsandlack of access tocomprehensiveinformationandexchangesofletters
- Notrunthe administrativehierarchyandgeneraladministrativepolicies
- Lack of accessandopportunityto addressandworkinformationfromoutside the organization.
- Notfollowedbyaletter anditcyclesthrougheverymoment
- Lack ofsupervision ofthe administrative system, circulationandperformanceofindividuals
- Controllingaccessto information
- Archiveandaccessproblemsin terms ofsizeandtime limitandsubjectinformation
- Maintenanceand use ofmultiplefaxmachines, and owesnoincoming faxes
- And to identifyproblems intimetosendmultiplefaxesto sendtiming
- Lackofanintegrated environmentfor accessingcontentandinformation, including letters, drafts, fax, e-mail, referenceworks, Howe...Thisprojectislooking foroffice automationsoftware,according to the characteristicslistedinthe selection of asuitableautomatedsystem tohelp usDah, so this studyisthatfactors thatcouldshapetheMCDMtechniqueshelpus intheoffice automationsoftware.

Careandresearchpurposes

Activitiesandmeasuresandequipmentforgeneration, transmissionandprocessingare beingspent onadministrativedocumentationand office automation systems comprise correspondence is simply that set of measures to facilitate automated activity, and circulating letters in place of cit. Often these measures to manage, support and maintenance and simple distribution of in formation and documents in the administrative and technical design and usuallysoftware packagesis presented.

The main goal:

Knowledgeofoffice automation systemforidentifyingandselectinga system to rate its effectiveness on Bhrvryemployeesbydistrict 15of Tehran (with emphasis onhuman resources)

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41

Research Methodology:

Comprehensivepictureaboutoffice automation systemprovidedbyDistrict15 of Tehran, is importantinthesecaseshas beenanalyzedandreviewedprevious and currenthandpositionand hence thecasemethod-fieldusedtook.

Data collectiontools:

Due to thecomprehensivenature oftheresearchand the necessityto achieveappropriatequality levelof themethods

1 -View2 -Interview3 -Questionnaire4 -ReviewDocuments

Were usedasappropriate.

StatisticalSociety:

Theresearchinthe statisticalcommunitydistrict 15of Tehran provincehadbyallemployees.

Sampling:

Astratified random sampling

The researchliterature

Inthis study,evaluationcriteria andindicatorsformining, extensivestudies havebeen conductedanda libraryof differentmodelshavebeen studied. Suchresearchmay bereferred toasG Minnesotainan articletitled"AHPnewtechniquedependson thedecisionstogether," isthatitfullyAHP techniqueisdescribedalong withahypotheticalexample,[1]

Another thirty experts, senior research thesis, the researcher to identify and prioritize effective factors on productivity believers Pars Refractories Co. Yazd using MCDM techniques in environmental decision making is fuzzy and techniques he used in research LINMAP taken Tapsys, Alktr and, AHP, is [6]

In 2008several articlespublished in International SayedethatthesametechniquesusedhaveTapsysAHPandafew ofthem are"the weaponsusingtechniquesTapsysAHPandfuzzyenvironment" (Dgdvyrn andtheacoustic[9]), ".

OfharmfulwastetransportcompaniesusingfuzzyAHPandTapsystechniques"(Gamvs [11]) and" Wharfsite selection usingAHPandTapsystechniques"(Avnvt andtheage[12]) and

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42

ArticlesotherarticlesthatmaycontacttheresearchersintheirstudyoftheAHPhierarchicaltree, and then using theweightingtechniqueandthetechniqueTapsyshavetoprioritize theoptions inyourmodel.

Inthe currentstudywasto answerthefollowingquestions:

Step 1-Identifythe steps

Step 2- RankingFactors

Step 3-Integrateresults

Step 4- Rankingof options

Step 1-Identifythe steps

The"Analytical Hierarchy Process" as oneofmyclockis providedby ProfessorShhayChndmyarhdecision.

Thismethodhasattractedresearchersofthe 1980sandmanystudieshavebeen conductedon it. The purposeof theAnalytical Hierarchy Process creationorissueofacomplexhierarchyofqualifications,from big to smallclassifiedorspecialmaterialsandgeneraleconomic, untilwe can thus understandtheissuemoreclosely tofind.

Analytical HierarchyProcessforimplementationin thefirst step, a hierarchicaltree-drawing problemthathas agoal, criteria andstandardsarebelow.

The nextstepshould beinTablespairedcomparisonsof criteria and Zyrmyarhabepreparedandbeavailable toparticipantsin thestudy. In thethirdstep, the tablesshould becompletedbyindividualsin terms ofrateofincompatibilityand tablesareinconsistentwiththe rateof1/0aretobereturnedtoindividualsintheirjudgmentthatis inconsistentwiththeirreview. Finallyopinionsintegratewith each otherandtoafinalrankingof thestandardsweachieve. Thisisdoneby2000 TeamExpert Choicesoftware.

SAWmethod

Simpleweightedsummodel, theSAWis one of thesimplestmethodsis themulti-criteriadecision making. Calculating theindexweightscaneasilybe usedthisway. To use thismethod, the following steps are necessary:

1. Quantitativedecision-making matrix
2. Thedecisionmatrix ofvalues oflinearscaling
3. Scalematrixmultiplicationin theweightsof indicators

4. Select thebestoption(A *)usingthe followingcriteria:

In other words,theSAWmethodoptionis selected(* A)thesum $A^* = \left\{ A_i \middle| Max \sum_{j=1}^{n} n_{ij} w_j \right\}$ ofitsscale, (nij wj) ishigherthan otheroptions.

Prioritiesstrategies

May bedue tothe different techniquesfordifferentgradingShdrtbhabovetheunitcomeswith aproblem, thenforconsensusranking ofthe variousmethodsofintegrationinclude: BredaandCapmethodcan be used inMaryland....

Method

Procedure of this study was based on three steps, the first step to fully understand the concepts and identify the dimensions and components of the research, managers, supervisors and employees by a number of experts in Tehran and senior programming and free guided interview was done and then according to the literature investigating the situation, criteria and indicators to improve the software that best identified the following 5 groups of 32 criteria in public facilities and systems capabilities, systems management, facilities list, Dashboards, editable the Editor, scan and archive, respectively.

Methods ofdata collection:

Due to thecomprehensivenature oftheresearchand the necessityto achieveappropriatequality levelof themethods

1 -View2 -Interview3 -Questionnaire4 -ReviewDocuments

Were usedasappropriate.

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44

Aftertheprimarycriteriawasthat 32criteria, were identifiedbythe researchgroup, byquestionnaireofthesurveyparticipantswere asked togivethem ascorebased onthe followingimage.

میزانتاثیر	خیلیزیاد	زیاد	متوسط	کم	خیلیکم
امتیاز	9	7	5	3	1

Because of limitations that existed in our company from the 32 questionnaires distributed, 30 were returned from that number. Arithmetic and geometric mean of the combined ideas and EXCEL software metrics were calculated from the final Priorities criteria and the final criteria were as follows.

Criteria thataccording to theanalysisofaquestionnairehadthe highest importance, meaning thatthosewhoscoreabove thearithmetic averageandgeometricparametersof theresponsesto thequestionnaire(individual marketmembers) havebeenkeptanda numberof criteriathanthearithmetic averageorgeometricmean, wereexcludedfrom theprocess.

Afterfinalcriterionwas21, but thegeometric meanissmaller than thegeometric meanof allconditionsis notwellenough tobe selectedandtheprimarycriterionof 32, 21 criteriawere selected. Inthefinal21were selectedusingcriteriapairedcomparisonsoftables, individualswerecomparedtodataobtained fromthesetablesto workondifferenttechniquesin order toPrioritiescriteriawassuperior.

Criteria forchoosing the bestoffice automationsoftware:

SystemCapabilities andPublicFacilities

C1.Recordallincoming and outgoingmailprofile

C2.Define theinternalorganizationchartastree

C3.Therecordaletter byletterandattachmentsincluding: incoming and outgoing

SystemManagement

C4.Secretariatto defineone or morecentralizedanddecentralized

C5.Multipleuserscansimultaneouslyusethesystem

C6.Systemcanchange the default settingsfor convenience

C7.Backup(Backup)toperiodicallyandautomatically

C8.Possible relationshipbetweenthe Secretariatandthe Secretariatto theSecretariataletterfrom theotherevenathigh

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45

Facilitylist ofDashboards

C9.Resolutionandfollow-uplettersreferredtoasthe nextpersononthe letterthattheyhavenoaction

C10.Mayviewandinitialedtextfilesorrefertoyourletter

C11.Insertrefertothe letterandthedeadline forfilinga letterofreferraloptions

Editablein theEditor

C12.Type theletterby theeditorin 2007andMS Word 2003

C13.Possiblewithotherdatabasesandinformationintext

C14.Definingthe pattern andformdifferentnumberssetforeachindicator,the Secretariat

C15.Variousreportscanbeprepared ingeneral, graphs, statisticaltables

C16.Reportof theOffice of theindicator

C17.Reportofincomingcorrespondence, outgoing, and internal

C18.formatandtextfilesstoredin theWordBanks Informationsystemsto preventconfusionandfragmentationtext fileletters

Sendatrans

C19.Connectivitytoa variety ofsinglesheetscannersandbatch

C20.Physicallocation oftheInsertof letters, records andarchivesofZvnkn

C21.Createmultiplecopiesofaletter andfilingthemindifferentZvnkn

Analysis ofdata

Consideringthe21criteriaof 32was chosen asthe primarycriterion, a secondquestionnairewas preparedandpairedwith 5Comparisonbetween 18subjectswere distributedanda total of 16questionnaireswere returned.

Step 2- RankingFactors

Thehierarchicalanalysistechniques

Aftercompletingthe questionnaire, using Team Expert Choicesoftwarewasintegratedwith each otheropinions. This software hasextensivefacilitiesforobtaining thematrixofpairedcomparisons,

and thenintegratingvarioussubjectsintothematrixisa matrixunitin whichthegeometric meanoftheindividualmatrixelements, respectively.

Soitwas thatwayafter thesecondquestionnairebythe respondents, the matrixofpairedcomparisonsof thequestionnairewereenteredinto the software individually and determine the compatibility or incompatibility ofideas, opinion smatrixincompatibility was required rate of eachindividualwecalculated. Finally, 16 questionnaireswere collectedfrom 18questionnairesthatweredistributedandcollectedafter thelast onewas asoftwareincompatibilitywere studied, application of 5matrixforeachcombination ofa matrix(which benefitsall participants,theaverageitwasingeometry) andthefinalranking of21criteriatoweigheachcaseseparatelyplacedatourdisposal.

نگاره 1. اوزاننهايي 21 كنيكتساسارايبرادانويساماتوراتفامنرينتهبباختنارادرايعمAHP

Rankingtechniquesbased onSAW

Afterdata frompersonal viewsintothesecondquestionnairewasExpertChoicesoftware, the software measurestheweightofpeople's opinions, separatelygave us, thedecisionto implement themethodusingthematrixformSAWpay, the resultofevaluatinganyresponsestothisquestionnaireiscompletedandcollected, adecisionmatrixwith 21rows(Tdadmyarha) and 16columns(number of respondents) thatwillworkonothertechniquesmulti-criteriadecision-makingis. Afterexecutingthe abovetechniquehasthe following results.

Step 3-Integrateresults

TheBreda

This method is based on majority rule. Method (AHP) that prefers A1 to A3. A1 to A3 Shhayy number who prefers more of the many ways that prefers A1 to A3. So the most methods, A1 and A3 are preferred in this case, paired comparison, with the M do. If the paired comparison, there was no majority vote or votes together was equal, it can be encoded with X. M as it is preferable that the column and row upon row of X, which indicates that the column is preferred. Separately for each paired comparison, is investigated. Number of comparisons equal to m (m-1) / 2 is m, the number of options. Disconnect option (ie M) is in line with the majority of [6].

Consider again the example of the use. Breda method options are mutually compared. The results are shown in the image below.

قاعدهاکثریت 3 نگاره

Asthechart(5) isspecified, A1 andA3andA4alsohas apreference. Soincolumn(CΣ),number 2is given. Thus,according toBreda, the followingoptionswill beprioritized[6]:

A1 = A2> A3> A4

Kplndmethod

This way, the end is the beginning of Breda. Kplnd method not only the number of boards, but the number of numbers, the losses can be calculated for each option. The last row of graphs (5) (ie row ΣR), total losses for Hrgzynh shows. For example, in painting (5), alternative A3, option A1 and option A2 is also telling. Thus losing its number, is 2. Rate Cap Land, which offers both options, with reducing the number of losses (ΣR) the number of boards (ΣC) is calculated. Considering the previous example, based on Land Cap method, rating each option is calculated as follows:

ΣC - ΣR = 2-0 = 2 = A1 rating options

2-0 = 2 = A2 rating options

1-2 = -1 = A3 rating options

Score = 0-3 = -3 Option A4

The ranking of options, if A1 = A2> A3> A4 will be. [6]

The integrationphase

At this stage, efforts should be prioritized according to the three strategies (mean rank, Breda and Kplnd) through a set of partial rankings (Poset) to achieve consensus. Under the merger, with linear priorities can be based on a consensus reached Poset. If, for example, set the priority to the mathematical language to express the following:

K = (O1, O2)

O1: A1> A2> A3> A4

O2: A2> A1> A3> A4

When all elements of O1 and O2, have the same set, ie S = {A1, A2, A3, A4},

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48

P1 component can then prioritize the following display:

A4 consistently than any other element, is rather low; A3 to the A1 and A2, is rather low. A1 and A2 elements in P1, Mqas·h are not applicable because the O1, A1> A2, and O2, A2> A1 is. [6]'

Step 4- Rankingof options

Theresults ofourmodelsoffer:

معيارانتخاببهتريننرمافزاربراساستكنيكهايبرداوكپلند 21 رتبهبندي 4. نگاره

عوامل	معيارها	بردا	کپ لند
قابليت ها و امكانات عمومی سيستم	C1 C2 C3	١ ٧ ٣	١ ٥ ٦
مديريت سيستم	C4 C5 C6 C7 C8	١١ ٥ ٧ ١٤ ١٢	١٠ ٣ ٤ ١٥ ٧
ليست امكانات كارتابل	C9 C10 C11	٢ ١٣ ١٠	٢ ١٧ ٨
قابليت ويرايش در Editor	C12 C13 C14 C15 C16 C17 C18	٢١ ١٥ ١٦ ١٩ ١٧ ٢٠ ١٨	٢١ ١٩ ١٤ ١٦ ١٨ ٢٠ ١٣
ارسال فرامنطقه ای	C19 C20 C21	٩ ٤ ٧	٩ ١١ ١٢

Afterthe rankingcriteriabythetwomethodswas obtainedBredaandCapLand, turntotheresults of thesetwomethodsarecombinedtogetherandthecriteriatoobtaina singleranking, thetechniques, methods ofintegrationcalled. Tomerge thetwomethodsofratingachievedforeachcriterionwemeanthattheaverageresultsare showningraphs5anddrawattention to theintegration ofthehierarchicaltreeof thecriteriaexplains

نگاره 5. شادغامي رواساس ابرها رمعيار بهرت

ردیف	معیارها	رتبه
۱	C1	۱
۲	C2	۶
۳	C3	۳
۴	C4	۱۲
۵	C5	۴
۶	C6	۵
۷	C7	۱۳
۸	C8	۱۱
۹	C9	۲
۱۰	C10	۱۴
۱۱	C11	۹
۱۲	C12	۲۱
۱۳	C13	۱۶
۱۴	C14	۱۵
۱۵	C15	۱۹
۱۶	C16	۱۸
۱۷	C17	۲۰
۱۸	C18	۱۷
۱۹	C19	۱۰
۲۰	C20	۶
۲۱	C21	۸

Usingthe results of theintegration methodwehaveofourrankingsbased ontheirimportance, sothattheratingcriteria foreach of thefactorsinfluencingthe choice offive-fold andhavethe bestsoftwareoutof theprioritiesoftheresultsofwere:

Asinpainting(6) we see, the operatingsystemfeaturesandpublicfacilitiesor themost importantpriorityinthe nextclassofsystemsmanagement, facilitieslist,Dashboards, editable in theEditor,scanningandarchiving

Locatedandoperatinginan environmentthatissignificantlylessimportant.

نگاره 6. ونيوماسي اتوماراتوم رافز نرم بهرتين انتخاب رب رث موثمل عوا دي يبنر بهرت

عوامل	معیارها	رتبه معیار	میانگین رتبه زیر معیارها	رتبه عوامل
قابلیت ها و امکانات عمومی سیستم	C1 C2 C3	۱ ۶ ۳/۵	۳/۵	۱
مدیریت سیستم	C4 C5 C6 C7 C8	۱۲ ۳/۵ ۶ ۱۳/۵ ۱۱	۹/۲	۴
لیست امکانات کارتابل	C9 C10 C11	۲ ۱۳/۵ ۹/۵	۸/۳۳	۳
قابلیت ویرایش در Editor	C12 C13 C14 C15 C16 C17 C18	۲۱ ۱۶/۵ ۱۵ ۱۹ ۱۸ ۲۰ ۱۶/۵	۱۸	۵
ارسال فراملطه ای	C19 C20 C21	۹/۵ ۶ ۸	۷/۸۳	۲

Conclusions and recommendations

Office automation, the best tool to achieve a good work in order to save time and optimum use of time in the organization is. Mechanized solutions to the flow of correspondence, curing, and also provides work flow management. In this process, eliminating paper correspondence, conservation and optimum use of time, be practical in this paper, the results indicate that the ability of public order management systems, facilities list, Dashboards, editable in the Editor, scanning and Archive at the office automation software is important.

Select suitable software, office automation and dynamic management is always one of the major challenges. In this paper attempts to use the written sources are the prime components of office automation software and then during are view and rating Qrargyrndfield research. According to the organizations different goals, which intends to achieve the objectives in the field should produce good software five elements above the fold should be considered.