The Impact of Working Capital Management on the Performance of Firms Listed in Tehran Stock Exchange (TSE)

Mohammad Taghipour

Young Researchers and Elites club, Science and Research Branch, Islamic Azad University, Tehran, Iran Mohamad.taghipour@srbiau.ac.ir Hassan Habibi Machiani Department of Social Sciences, Payame Noor University, Tehran, Iran

Mostafa Amin Master of Economics, Islamic Azad University, Arak Branch

Abstract—The purpose of the present research is to provide evidence regarding the relationship between working capital management and operating profit in production firms in order to achieve profit and income increase goals. In this research, the variables of average collection period, inventory turnover in days, average payment period, cash conversion cycle, and net trade cycle are used as the variables of working capital management. Then, by estimation of the components of working capital management, its impact on profitability is assessed. In the end, the relationship between research variables is analyzed by implementing a regression model. The results suggest that working capital management has a relationship with net operating profit.

Keywords—working capital management; cash conversion cycle; net trade cycle, average collection period; inventory turnover in days; average payment period; net operating profit

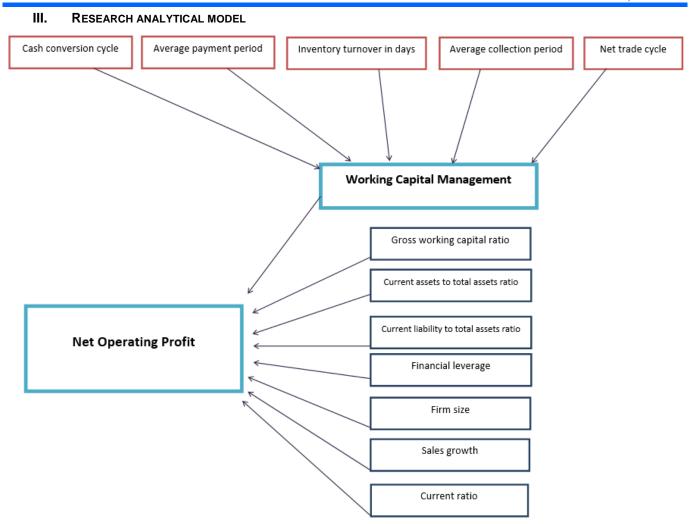
I. INTRODUCTION

Working capital management plays an important role in better performance of production firms. A firm's working capital is the sum of capital invested in current assets. If current liability in a firm is subtracted from its current assets, the result is net working capital. Working capital management refers to determination of the volume and composition of resources and the use of working capital in a way to increase the wealth of shareholders. The present research seeks to study the impact of working capital management on profitability in firms listed in Tehran stock exchange using regression model.

II. RESEARCH NECESSITY AND IMPORTANCE

The increasing importance of working capital management has transformed it into a specialized field of financial management. In large firms, there are a number of expert executive managers who spent their entire time and energy solely on the management of working capital. The reasons for the importance of this issue are as follows:

- A. The real and acceptable levels of current assets (due to changes in real and predicted sales) are prone to constant changes. This situation necessitates the constant (daily) decision-making on the acceptable or expected level of current assets.
- B. It is probable that due to changes in the level of current assets, managers are forced to reconsider their decisions for financing; for instance, if heavy short-term loan are used for financing current assets, firm managers would have to spend more time and energy for getting further loans or extending due loans.
- C. The extent of funds and resources allocated to working capital should be determined.
- D. If working capital management is not performed correctly, company's sales and profits may plummet; the firm might even fail to fulfill its liabilities and obligations in time



IV. RESEARCH HYPOTHESES:

- A. Working capital management has a significant relationship with net operating profit in production firms.
- B. Gross working capital ratio has a significant relationship with net operating profit in production firms.
- C. Current assets to total assets ratio has a significant relationship with net operating profit in production firms.
- D. Current liability to total assets ratio has a significant relationship with net operating profit in production firms.
- E. Financial leverage has a significant relationship with net operating profit in production firms.
- F. Firm size has a significant relationship with net operating profit in production firms.
- G. Sales growth has a significant relationship with net operating profit in production firms.
- H. Current ratio has a significant relationship with net operating profit in production firms.

V. RESEARCH METHOD

By purpose, this is an applied study.

VI. LOCATION OF THE RESEARCH

Firms listed in Tehran Stock Exchange comprise the statistical population of the present research.

VII. TIME OF THE RESEARCH

The research time spans over an eight-year time period from 2003 to 2010 fiscal years.

VIII. SAMPLING METHOD AND SAMPLE SIZE

The statistical population of the present research is comprised of all firms listed in Tehran stock exchange. Yet, since working capital of production firms is considered to be an important factor in this research, only profitable firms whose shares have been traded in stock market are selected.

IX. METHODS OF DATA ANALYSIS

In the present research, indices of working capital are independent variables, and net operating profit is considered to be the dependent variable. A firm's working capital is the sum of capital invested in current assets. If current liability in a firm is subtracted from its current assets, the result is net working capital. In this research, in order to examine the relationship between independent and dependent variables, regression analysis is used; to that end, an equation is formed through which the impact of independent variable on dependent variable is assessed.

X. A REVIEW OF RESEARCH HISTORY

Abdi Hevelayi et al.[1], studied Predicting Entrepreneurial Marketing through Strategic Planning (Including Case Study).

Haj Abukahaki et al.[2], studied Identification and prioritization of effective indicators on optimal implementation of customer relationship management in the insurance industry(including case study).

Taghipour et al.[3], studied Risk analysis in the management of urban construction projects from the perspective of the employer and the contractor.

Rezvani Befrouei MA et al.[4], discussed Identification and Management of Risks in Construction Projects.

Alamdar khoolaki et al.[5], studied Effect of integrated marketing communication on brand value with the role of agency's reputation.

Taghipour et al.[6], studied Analysing the Effects of Phisical Conditions of the Workplace on Employees Productivity.

Baghipour sarami et al.[7], studied Modeling of Nurses' shift Work schedules According to Ergonomics: A case study in Imam sajjad (As) Hospital of Ramsar.

Taghipour et al.[8], studied Supply Chain Performance Evaluation in IN The IT Industry.

Taghipour et al.[9], studied the Study of the Application of Risk Management in the operation and Maintenance of Power Plant Projects

Mahboobi et al.[10], discussed Assessing Ergonomic Risk Factors Using Combined Data Envelopment Analysis and Conventional Methods for an Auto Parts Manufacturer. occupational injuries are currently a major contributor to job loss around the world.

Taghipour et al.[11], studied Assessment and Analysis of Risk Associated with the Implementation of Enterprise Resource Planning (ERP) Project Using FMEA Technique.

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Taghipour et al.[14], studied Necessity Analysis and Optimization of Implementing Projects with The Integration Approach of Risk Management and Value Engineering. Taghipour et al.[15], studied Evaluating Project Planning and Control System in Multi-project Organizations under Fuzzy Data Approach Considering Resource Constraints.

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Taghipour et al.[22], studied Identification and Modeling of Radio Wave Propagation Channel in Industrial Environments.

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Seddigh Marvasti r et al.[33], studied Assessing the Effect of FRP System on Compressive and Shear Bending Strength of Concrete Elements.

Jalili et al.[34], studied Utopia is considered to be the physical form of an ideal human society where the goals are met.

Khodakhah Jeddi et al.[35], studied The Analysis of Effect Colour Psychology on Environmental Graphic in Childeren Ward at Medical Centers.

Taghipour et al.[36], studied discussed Insurance Performance Evaluation Using Bsc-Ahp Combined Technique.

Rezvani Befrouie A et al. [37], discussed the design of high-rise building with ecological approach in Iran (Alborz Province).

Torabi et al.[38], studied Implementation of hierarchy production planning model and its theoretical comparison with manufacturing resources planning.

Taghipour et al.[39], studied Investigating the Relationship between Competitive Strategies and Corporates Performance.

Taghipour et al.[40], studied The identification and prioritization of effective indices on optimal

implementation of customer relationship management using TOPSIS, AHP methods.

Taghipour et al.[41], studied The Impact of Working Capital Management on the Performance of Firms Listed in Stock Exchange.

XI. STATISTICAL POPULATION, SAMPLING METHOD, AND SAMPLE SIZE:

A. Population:

In this research, all firms listed in Tehran stock exchange in the period 2003-2010 comprise the statistical population.

B. Sampling method and sample size:

In order for sampling in this research, a number of criteria and filters are used to select sample members from the population:

 Since working capital of production firms is considered to be an important factor in this research, only profitable firms whose shares have been traded in stock market are selected.

After the exclusion, 70 firms have been selected as sample. Research variables are calculated using SPSS Ver.19 and Excel software programs.

XII. DATA ANALYSIS

A. Descriptive statistics

	Table 1: descriptive statistics regarding studied variables						
Variable	Average	Inventory	Average	Cash	Net	Gross	Current
measure	collection	turnover in	payment	conversion	trading	working	asset to
	period	days	period	cycle (CCC)	cycle	capital	total
	(ACP)	(ITID)	(APP)		(NTC)	ratio	asset
						(GWCTR)	ratio
							(CATAR)
Number	560	560	560	560	560	560	560
Mean	13604	2.42	160.18	0.14	141.58	2.06	0.63
Median	117.13	0.62	66.52	0.06	192.60	1.27	0.66
Mode	27.87	0.00	0.00	0.02	-6415.6	0.085	0.70
Std. deviation	130.01	8.33	558.48	0.32	519.91	14.94	0.29
Range	2591.78	139.16	7064.85	4.86	8345.24	354.25	5.48
Minimum	1.8	-6.6	0.00	0.00	-6415.42	0.085	0.001
Maximum	2593.58	132.56	7064.85	4.86	1929.82	354.33	5.48

Table 1: descriptive statistics regarding studied variables

Rest of table 1: descriptive statistics regarding studied variables							
Variable measure	Current ratio (CR)	Current liability to total asset ratio (CLTAR)	Financial debt ratio (FDR)	Firm size (LOS)	Sales growth (SG)	Net operating profit (NOP)	
Number	560	560	560	560	560	560	
Mean	10854.66	0.5532	0.638	5.52	30.26	15.92	
Median	1.11	0.575	0.658	5.57	0.182	14.01	
Mode	3.16	0.222	0.274	4.55	-0.890	0.74	
Std. deviation	95473.57	0.156	0.143	0.56	0.799	10.66	
Range	1102192.99	0.77	0.862	3.32	12.23	70.7	
Minimum	0.003	0.106	0.157	4.36	-0.890	-17.18	
Maximum	1102193.00	0.876	1.019	4.68	11.34	53.52	

B. Examination of the first hypothesis

The first hypothesis: Working capital management has a significant relationship with net operating profit in production firms.

Model	Coefficie nt	Standardiz ed coefficient	t- statisti C	Sig.
Consta nt	35.56	-	7.55	0.00 0
ACP	-0.022	-0.294	-4.618	0.00 0
ITID	0.169	0.130	3.651	0.00 0
CCC	6.658	0.207	5.308	0.00 0
APP	0.011	3.242	0.001	0.05 4
NTC	0.008	0.385	2.258	0.02 4

 Table 2: Pearson correlation test

Table 2 demonstrates the results of Pearson's correlation test of the model variables. The obtained tstatistic values for the variables in this hypothesis are 4.618, 3.651, 5.308, and 2.25 respectively, all of which are larger than the critical t-value. The obtained significance level for these variables are 0.00, 0.00, 0.00, and 0.24 respectively, all of which are less than the acceptable error margin α = 0.05. Therefore, the null hypothesis is rejected. In other words, these variables have a significant relationship with the dependent variable.

However, the t-value for the variable APP equals 0.001 which is less than the critical t-value. Therefore the null hypothesis is accepted which indicates this variable does not have a significant relationship with the dependent variable.

Among 5 variables representing working capital management, 4 have a significant relationship with the

dependent variable, and only one i.e. APP demonstrates no relationship. Therefore, it can generally be concluded that working capital management has a significant relationship with the dependent variable i.e. net operating performance. On that basis, the first hypothesis i.e. the main hypothesis is confirmed.

The second hypothesis: Gross working capital ratio has a significant relationship with net operating profit in production firms.

Model	Coefficie nt	Standardiz ed coefficient	t- statisti C	Sig.
Consta nt	35.56	-	7.55	0.00 0
GWCTR	-0.01	-0.015	-0.413	0.67 9

Table 3: Pearson correlation test of GWCTR

Table 3 demonstrates the results of Pearson's correlation test of GWCTR variable i.e. gross working capital ratio. As indicated, the obtained t-statistic value for this variable is less than the critical t-value. The obtained significance level for this variable i.e. sig= 0.679 is higher than the acceptable error margin α = 0.05. Therefore, the null hypothesis is accepted. In other words, this variable has no significant relationship with the dependent variable. On that basis, the second hypothesis is rejected.

The third hypothesis: current asset to total asset ratio has a significant relationship with net operating profit in production firms.

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Model	Coefficie nt	Standardiz ed coefficient	t- statisti C	Sig.
Consta nt	35.56	-	7.55	0.00 0
CATAR	-3.140	-0.089	-2.174	0.03

Table 4 presents the results of Pearson's correlation test of CATAR variable i.e. current assets to total assets. As indicated, the obtained t-statistic value for this variable is higher than the critical t-value. The obtained significance level for this variable i.e. sig= 0.03 is less than the acceptable error margin α = 0.05. Therefore, the null hypothesis is rejected. In other words, this variable has a significant relationship with the dependent variable. On that basis, the third hypothesis is confirmed.

The fourth hypothesis: current liability to total asset ratio has a significant relationship with net operating profit in production firms.

Table 5: Pearson correlation test of CLTAR

Model	Coefficie nt	Standardiz ed coefficient	t- statisti C	Sig.
Consta nt	35.56	-	7.55	0.00 0
CLTAR	25.09	0.379	5.9	0.00 0

Table 5 shows the results of Pearson's correlation test of CLTAR variable i.e. current liability to total assets. As indicated, the obtained t-statistic value for this variable is higher than the critical t-value. The obtained significance level for this variable i.e. sig= 0.00 is less than the acceptable error margin α = 0.05. Therefore, the null hypothesis is rejected. In other words, this variable has a significant relationship with the dependent variable. Hence, the fourth hypothesis is confirmed.

The fifth hypothesis: financial leverage has a significant relationship with net operating profit in production firms.

Model	Coefficie nt	Standardiz ed coefficient	t- statisti C	Sig.
Consta nt	35.56	-	7.55	0.00 0
FDR	-46.48	-0.643	10.622 -	0.00 0

Table 6 demonstrates the results of Pearson's correlation test of FDR variable i.e. financial leverage. As indicated, the obtained t-statistic value for this variable is higher than the critical t-value. The obtained significance level for this variable i.e. sig= 0.00 is less than the acceptable error margin α = 0.05. Therefore, the null hypothesis is rejected. In other words, this variable has a significant relationship with the dependent variable. Hence, the fifth hypothesis is confirmed.

The sixth hypothesis: firm size has a significant relationship with net operating profit in production firms.

Table 7: Pearson	correlation test of LOS
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Model	Coefficie nt	Standardiz ed coefficient	t- statisti C	Sig.
Consta nt	35.56	-	7.55	0.00 0
LOS	-0.378	-0.02	0.564	0.57 3

Table 7 represents the results of Pearson's correlation test of LOS variable i.e. firm size. As indicated, the obtained t-statistic value for this variable is less than the critical t-value. The obtained significance level for this variable i.e. sig= 0.573 is larger than the acceptable error margin α = 0.05. Therefore, the null hypothesis is accepted. In other words, this variable has no significant relationship with the dependent variable. Hence, the sixth hypothesis is rejected.

The seventh hypothesis: sales growth has a significant relationship with net operating profit in production firms.

Table 8: Pearson correlation test of SG

Model	Coefficie nt	Standardiz ed coefficient	t- statisti C	Sig.
Consta nt	35.56	-	7.55	0.00 0
SG	2.027	0.128	3.34	0.00 0

Table 8 shows the results of Pearson's correlation test of SG variable i.e. sales growth. As indicated, the obtained t-statistic value for this variable is higher than the critical t-value. The obtained significance level for this variable i.e. sig= 0.000 is less than the acceptable error margin α = 0.05. Therefore, the null hypothesis is rejected. In other words, this variable has a significant relationship with the dependent variable. On that basis, the seventh hypothesis is confirmed.

The eighth hypothesis: current ratio has a significant relationship with net operating profit in production firms.

Table 9: Pearson correlation test of CR

Model	Coefficie nt	Standardiz ed coefficient	t- statisti C	Sig.
Consta nt	35.56	-	7.55	0.00 0
CR	0.00005	-0.048	-1.375	0.17 0

Table 9 demonstrates the results of Pearson's correlation test of CR variable i.e. current ratio. As indicated, the obtained t-statistic value for this variable is less than the critical t-value. The obtained significance level for this variable i.e. sig= 0.173 is larger than the acceptable error margin α = 0.05.

Therefore, the null hypothesis is accepted. In other words, this variable has no significant relationship with the dependent variable. On that basis, the eighth hypothesis is rejected.

XIII. GENERAL RESULTS OF HYPOTHESES EXAMINATION:

Among 8 developed hypotheses in this research, 3 are rejected and 5 are confirmed.

XIV. CONCLUSION

The present research studies the relationship between working capital management and profitability in firms listed in Tehran stock exchange in an 8-year period. The evidence suggests that among five variables used to assess working capital management, four have a significant relationship with profitability, and only one does not demonstrate any significant relationship. All in all, working capital management has a relationship with firms' profits. In other words, working capital management plays a significant role in company's profitability and creation of value for shareholders.

The third hypothesis confirms that there is a significant relationship between current assets to total assets ratio and net operating profits. In other words, it indicates that there is a negative relationship between current assets to total assets ratio and net operating profits; that is, the increase in this ratio would decrease operating profits. However, the study by Abdurrahman in Pakistan suggests otherwise.

The fourth hypothesis confirms that there is a significant relationship between total liability to total assets ratio and net operating profits. In other words, it indicates that there is a positive relationship between liability to total assets ratio and net operating profits. Meanwhile, the study by Abdurrahman in Pakistan suggests that there is a negative relationship between the two variables.

The fifth hypothesis suggests that there is a significant relationship between financial leverage and net operating profits. In other words, the results indicate that there is a negative and significant relationship between current assets to total assets ratio and net operating profits; that is, the increase in financial leverage would decrease operating profits. The study by Abdurrahman in Pakistan supports this conclusion.

The seventh hypothesis indicates that there is a significant relationship between sales growth and net operating profits. The findings indicate that there is a positive and direct relationship between sales growth and net operating profits; also, the study by Abdurrahman in Pakistan suggests that sales growth has a positive relationship with profitability. It is an important factor which allows the company to accomplish further profits.

The second, sixth, and eighth hypotheses indicate that gross working capital ratio, firm size, and current ratio have no significant relationship with net operating performance. On the contrary, the study by Abdurrahman in Pakistan indicates that gross working capital ratio positively affects profitability, firm size directly affects net operating performance, and current ratio has a negative relationship with profits.

XV. REFERENCES

- [1] Abdi Hevelayi .A; Safarian Hamedani .S; Yusefi Saeed Abadi .R; Taghipour .M. "Predicting Entrepreneurial Marketing through Strategic Planning (Including Case Study)". Educational Administration Research Quarterly. 2019, 10(2):127-142.
- [2] Haj Abukahaki .A; Naami .A; Fathi hafshejani .K; Taghipour .M. " Identification and prioritization of effective indicators on optimal implementation of customer relationship management in the insurance industry(including case study)". Journal of Process Engineering. 2019, 5(1):18-28.
- [3] Taghipour .M; Seraj .F; Amir Hassani .M; Farahani Kheirabad .S. "Risk analysis in the management of urban construction projects from the perspective of the employer and the contractor". International Journal of organization Leadership. 2015, 4, 356-373.
- [4] Rezvani Befrouei .M; Taghipour .M. "Identification and Management of Risks in Construction Projects". American Journal of Civil Engineering. 2015, 3(5):170-177.
- [5] Alamdar khoolaki .M; Naami .A; Taghipour .M. " Effect of integrated marketing communication on brand value with the role of agency's reputation (including case study)". Journal of Process Engineering. 2019, 5(1):30-44.
- [6] Taghipour .M; Mahboobi .M; Nikoeifar .A; Soofi Mowloodi .E. "Analysing the Effects of Physical Conditions of the Workplace on Employee's Productivity (Including Case Study) " International Journal of Environmental Protection and Policy,2015, Vol. 3, No. 4, pp. 111-119.
- [7] Baghipour sarami .F; Bozorgi Amiri .A; Mououdi .M.A; Taghipour .M. "Modeling of Nurses' shift Work schedules According to Ergonomics: A case study in Imam sajjad (As) Hospital of Ramsar". Journal of Ergonomics, 2016, 4(1), 1-12.
- [8] Taghipour .M; Mehrnaz .B; Khodarezaei .M; Farid .F " Supply Chain Performance Evaluation in IN The IT Industry" . IJRRAS. International Journal of Recent Research and Applied Studies, 2015, Vol 23, Issue 2, 144-156.
- [9] Taghipour .M; Vosough .A; Kazemi .N; Ahitabar .P. "The Study of the Application of Risk Management in the Operation and Maintenance of Power Plant Projects". International Journal of Business Management, 2018, 3(3), 98-110.
- [10] Mahboobi .M; Taghipour .M; Azadeh .M. "Assessing Ergonomic Risk Factors Using Combined Data Envelopment Analysis and Conventional Methods for an Auto Parts Manufacturer". Work-A Journal of PREVENTION ASSESSMENT '& REHABILITATION (accepted), 2020.
- [11] Taghipour .M; Shabrang .M; Habibi Machiani .H; Shamami.N " Assessment and Analysis of Risk

Associated with the Implementation of Enterprise Resource Planning (ERP) Project Using FMEA Technique (Including Case-Study)" . Management, International Technology and Science Publications (ITS), 2020, Vol 3, Issue 1, 29-46.

- [12] Taghipour .M; Hoseinpour .Z; Mahboobi .M; Shabrang .M; Lashkarian .T, " Construction projects risk management by risk allocation approach using PMBOK standard". Journal of Applied Environmental And BiologicalSciences, 2015, 5(12), 323-329.
- [13] Taghipour .M; Kheirkhahan .H; Mahboobi .M; Mohammadi .M. "Evaluation of the Relationship between Occupational Accidents and Usage of Personal Protective Equipment in an Auto Making Unit". International Journal of Innovative Research in Science, Engineering and Technology, 2015; Vol 4, Issue 9.
- [14] Taghipour .M; Seraj .F; Seraj .M. "Necessity Analysis and Optimization of Implementing Projects with The Integration Approach of Risk Management and Value Engineering". A Journal of Economics and Management, 2015, 5(1), 330-346.
- [15] Taghipour .M; Shamami .N; Lotfi .A; Parvaei Maryan .S " Evaluating Project Planning and Control System in Multi-project Organizations under Fuzzy Data Approach Considering Resource Constraints(Case Study:Wind Tunnel Construction Project) " . Management, International Technology and Science Publications (ITS), 2020, Vol 3, Issue 1, 29-46.
- [16] Taghipour .M; Moghadam .A; Moghadam Naghdi Shekardasht .B." Implementation of Software-Efficient DES Algorithm". SciencePG, 2015, Vol 3, Issue 1, 7-22.
- [17] Taghipour .M; Sharifzadeh .S; Seraj .F. " Risk assessment and analysis of the state DAM construction projects using FMEA technique" . Trends in Life Sciences An International Peerreviewed Journal, 2015, Vol 4, Issue 2.
- [18] Taghipour .M; Mahboobi .M; Gharagozlou .H. "The Impact of ICT on Knowledge Sharing Obstacles in Knowledge Management Process (Including Case-Study) ". Iranian Journal of Information processing and Management, 2016, 31 (4) ,1049-1074.
- [19] Taghipour .M; Saffari .K; Sadri .N. "Assessment of the Relationship Between Knowledge Managment Implementation and Managers Skills (Case Study: Reezmoj System Company in Iran)" . Science Journal of Business and Management, 2016, Vol 4, Issue 4, 114-120.
- [20] Taghipour .M; Nokhbefallah .M; Nosrati .F; Yaghoubi .J; Nazemi .S. " Evaluation of the effective variables of the value engineering in services(Qazvin post center case study)".
- [21] Khalilpour .M; Kamyabi .Y; Nabavi Chshmi .S. A; Taghipour .M. "HE Impact ofAccounts'Ethical Approaches on The Disclosure Quality of Corporate Social Responsibility Information an

Islamic Perspective in Iran". National Academy of Managerial Staff of Culture and Arts Herald, 2018, No 1,1173-1181.

- [22] Taghipour .M; Sedaghatmanesh .P; Safari .M; Hekmati .N. "Identification and Modeling of Radio Wave Propagation Channel in Industrial Environments". International Journal of Innovative Research in Science, Engineering and Technology, 2015, Vol 4, Issue 9, 9260-9271.
- [23] Taghipour .M; Seraj .F; Shamami .N. Amin, M.; Changiz, D.M. "Evaluating CCPM method versus CPM in multiple petrochemical projects". Management, International Technology and Science Publications (ITS), 2020, 3(3), 1-20.
- [24] Soleymanpour .M; Taghipour .M; Shamami .N. " Mathematical modeling for the location-allocation problem - allocation of mobile operator subscribers' affairs' agencies under uncertainty conditions". Journal of Multidisciplinary Engineering Science and Technology (JMEST), 2020, 7(5), 11845-11852.
- [25] Taghipour .M; Soofi Mowloodi .E; Mahboobi .M; Abdi .J. " Application of Cloud Computing in System Management in Order to Control the Process" . Management, International Technology and Science Publications (ITS), 2020, Vol 3, Issue 3, 34-55.
- [26] Taghipour .M; Ahmadi Sarchoghaei .J. " Evalation of Tourist Attractions in Borujerd County with Emphasis on Development of New Markets by Using Topsis Model". Science Journal of Business and Management(Science PG),2015, Vol. 3, No. 5, pp. 175-189.
- [27] Abdollahzadeh .N; Taghipour .M. " Identify and Priorize Suitable Area for Ecotourism Development using Multi-criteria Analysis for Development of the Tourism Market in Iran (Nathanz City)" . International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET), 2015, Vol. 4, No. 11, pp. 11525-11536.
- [28] Mirzaie .F; Nazari .A; Zargham Boroujeni .H; Taghipour .M. "The Relationship Between Social Bearing Capacities with Conflict as a Result, in the Perception of the Visiting Historical Sites". Journal of Investment and Management, 2015, Vol. 4, No. 6, pp. 403-408.
- [29] Abdi Hevelayi .A; Safarian Hamedani .S; Yusefi Saeed Abadi .R; Taghipour .M. " the relationship between strategic planning with entrepreneurial marketing in the saderat bank of north tehran". Journal of Process Engineering. 2018, 4(10):34-42.
- [30] Abbasi. S; Taghipour. M. "An Ant Colony Algorithm for Solving Bi-criteria Network Flow Problems in Dynamic Networks". 2015,3(5):-48 34.
- [31] Sedaghatmanesh .P; Taghipour .M; "Reduction of Losses and Capacity Release of Distribution System by Distributed Production Systems of Combined Heat and Power by Graph Methods".

American Journal of Electrical Power and Energy Systems, 2015, Volume 4, Issue 6, Pages: 84-99.

- [32] Taghipour .M; Safari .M; Bagheri .H. "A Survey of BPL Technology and Feasibility of Its Application in Iran (Gilan Province) ". Science Journal of Circuites, Systems and Signal Processing, 2015, Volume 4, Issue 5, Pages: 30-40.
- [33] Seddigh Marvasti, B.; Beheshti, S.M.A.; Chegini, H.; Taghipour, M. studied Assessing the Effect of FRP System on Compressive and Shear Bending Strength of Concrete Elements. International Journal of Innovative Research in Science. Engineering and Technology, 2015, 4(11): 11511-11524.
- [34] Jalili, L; Ghafourian, M; Toopal, T; Taghipour, M. Comparative Study of Khaje Rashid al-Din Views on Rab-e Rashidi Islamic Utopia and Kevin Lynch Ideas. Journal International Journal of Archaeology. 2015, 3(5): 39-47.
- [35] Khodakhah Jeddi, L.; Kasrayee, F.; Khodakhah Jeddi, S.; Taghipouret, M. The Analysis of Effect Colour Psychology on Environmental Graphic in Childeren Ward at Medical Centers. Psychology and Behavioral Sciences, 2016,5(2): 51-61.
- [36] Taghipour .M; Vosough .A; Azizi .D; Abdi .J. "Insurance Performance Evaluation Using Bsc-Ahp Combined Technique". Journal National Academy of Managerial Staff of Culture and Arts Herald. 2018,4 : 112-120.
- [37] Rezvani, B.A; Ghobadian, V.; Taghipour, M. The design of high-rise building with ecological approach in iran(Alborz Province). International Journal of Modern Trends in Engineering and Research, 2015, 2(10): 455-464.

- [38] Torabi . F; Taghipour .M; Madankan .M; Mahdijoo .R; Mahdijoo .A. "Implementation of hierarchy production planning model and its theoretical comparison with manufacturing resources planning (MRP II) (Case study of Iran Khodro Company)". Journal of Applied Environmental, 2015, Vol 3, Issue 12, 196-202.
- [39] Taghipour .M; Barzegar .P; Mahboobi .M; Mohammadi .S. "Investigating the Relationship between Competitive Strategies and Corporates Performance (Case Study: Parsian Banks of Tehran)" Management, International Technology and Science Publications (ITS),2020, (Accepted).
- [40] Taghipour .M; Ganji .F; Zolfagharijoo .A; Lotfi .A; Torabi .F. " The identification and prioritization of effective indices on optimal implementation of customer relationship management using TOPSIS, AHP methods(Case study: Pasargad bank)" . Management, International Technology and Science Publications (ITS),2020, (Accepted).
- [41] Taghipour .M; Karimi .M; Nikseresht Sigaroodi .H."The Impact of Working Capital Management on the Performance of Firms Listed in Stock Exchange" . International Journal of Management,2018, volume1: page 1-9.