

# Incorporating Rehabilitation Management towards the Restoration of Abandoned Housing Projects

Sunitha V. Doraisamy<sup>1</sup>, Zainal Abidin Akasah<sup>2</sup> and Riduan Yunus<sup>3</sup>

<sup>1,2,3</sup>University Tun Hussein Onn Malaysia Faculty of Civil & Environmental Engineering  
E-mail: <sup>1</sup>[suni7624@yahoo.com](mailto:suni7624@yahoo.com), <sup>2</sup>[zainal59@uthm.edu.my](mailto:zainal59@uthm.edu.my), <sup>3</sup>[riduan@uthm.edu.my](mailto:riduan@uthm.edu.my)

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**Abstract**—There have been various researches on the issue of abandoned projects in different countries, and Malaysia is one of them. The number of causes that has been identified along the years with project abandonment does not differ much based on the findings by past researches. From some of the causes highlighted, the background of those causes shows a summary of one main cause or factor, which is the improper management of a construction project. This paper looks into the incorporation of rehabilitation management in the restoration of abandoned housing projects in Malaysia. By looking into the stages required in rehabilitation and management, the togetherness of it is therefore could lead to a successful project restoration. The definition, different aspects, stages and process in both rehabilitation and management are elaborated in this paper, to show that the combination of both could lead to a successful project restoration. Apart from that, causes identified by researchers from various countries are also laid out, where improper management stands out to be the highest factor with a percentage of 61% among other causes that has been identified. Here, a study on past researches on the issue of project abandonment, and an interview with the Ministry of Housing and Local Government was also conducted, for this purpose. By conducting this paper, the statistic of abandoned housing projects in Malaysia was also obtained to show that there are still existing projects that are yet to be revived. The part on elaboration of rehabilitation, management and causes of abandoned projects in this paper, shows the possibility of incorporating rehabilitation management which could lead towards restoration of abandoned housing projects. This paper is also hoped to give some information and suggestions that could contribute towards project restoration in the coming future.

**Keywords:** *abandoned, incorporating, rehabilitation, management, restoration.*

## 1. INTRODUCTION

Abandoned projects is not something new that is happening in the Malaysian construction industry. The construction industry in Malaysia has made impressive development and establishment, which has contributed to the growth of economy and as well as boost the quality of life of the society. The Ministry of Housing and Local Government, (MHLG), [1] has reported that from the year 1990 to 2009, about 808,000 units of low-cost affordable housing were provided to support Malaysians in need. The development of any type of

houses, let it be low cost, medium cost and high cost, is always in demand.

The housing projects in Malaysia are also one of the types of projects that are frequently abandoned, [2]. The abandonment of housing projects is not something which is only happening in Malaysia, but also in other countries as well. There has been studies carried out by past researchers on the issue of abandoned projects, and they have identified various causes and effects due to this issue. The reason behind the abandonment of housing projects comes from different aspects and factors. Due to the various reasons the projects are unable to progress and complete, resulting to the abandonment of it. House buyers who have made payment progressively are the ones suffers from this adverse situation. It is indeed a cause of depression and anxiety for the house buyers, where the payment for their housing loans has to be carried out, although they have yet to stay in their new house, and in fact any chances in doing so is still a question which is yet to be answered. Even if the housing project is long abandoned, the monthly payments have to be honoured. If they fail to make the payment, unfortunately the house-buyers would be fined or sued. This is the very reason as to why the government has channeled a vast amount of money in the restoration of abandoned housing projects [3].

Rehabilitation is the act of restoring something to its' original state or to the intended state. If the rehabilitation process is managed properly and systematically from the inception point, the restoration of the abandoned housing projects could be completed successfully. Management is a process of dealing, monitoring and controlling, involving situations, things or people. Therefore, a complete and proper rehabilitation management system could lead to the success of any project restoration.

## 2. ABANDONED HOUSING PROJECTS

The abandonment of housing projects is something that could be seen in third world countries, developing countries and in a developed country as well. [4], has stated that the World Bank and Habitat has funded many housing schemes in the past

years to apprehend the needs of developing housing projects for the increasing population worldwide. Thus, the increase numbers of abandoned housing projects only overshadows the efforts in the development of it.

The existence of many unfinished buildings in a way attributes to the downfall of the economy and creates an unpleasant image of the country's construction industry. The presence of an unfinished building also paints an unaesthetic view of it. The increasing number of abandoned projects raises curiosity and question on why this sort of failure is occurring in various countries, including Malaysia itself. In the perspective of some researchers, they attribute the failure in completing a project is to the country's economic condition or economy crisis, or due to the poverty stricken state of the country. Some researchers have pointed out that the luxurious and expensive architectural provisions is the cause in the incompletion of a project [4]. The overall causes that has been poured out by various researchers from different countries has showed the managerial process of building projects is the one which is highly to be blamed, and in fact many aspects of other factor of causes that has been highlighted by researchers, are somewhat interlinked which leads to the possibility of the improper management itself. A comparison matrix on the causes of abandoned projects from various researches is shown in **Table 2 (a)**.

**Table 2 (a): Matrix on the Causes of Abandoned Projects**

Causes Researcher	[5]	[6]	[7], [8]	[9]	[10]	[11]	[30]	[12]	[13]
Improper management	x	x	x		x	x	x		
Lack of communication on projects goals	x		x			x	x		
Lack of project team promise									
Incompetent contractors	x	x				x	x		
Lack of end-user's needs	x								
Interference of end-users	x								
Inconsistency in Government policies		x		x	x				
Persistent community eruption & interference									

Improper project development timing & scheduling	x				x				
Improper project financing	x	x	x	x		x	x		x
Death of owner/client/investor	x		x	x					
Land disputes	x		x	x					
Improper project planning & design	x		x	x					x
Climate/natural disaster	x		x	x					
Increase of material cost/shortage	x		x	x		x	x		
Incompetent project manager	x		x	x					
Leadership instability	x								
Lack of project risk assessment	x		x	x		x	x		
Disapproving economic conditions/crisis									
Poor marketing strategy									
Disputes between parties involved in contract									
Rework									
Payment delay									
Incompetent controlling & monitoring									

(Source: Summary from the literature)

**Table 2 (a) Continued: Matrix on the Causes of Abandoned Projects**

Causes Researcher	[14]	[15]	[16]	[17]	[18]
Improper management				x	
Lack of communication on projects goals					

Lack of project team promise			X		
Incompetent contractors	X		X		
Lack of end-user's needs					
Interference of end-users					
Inconsistency in Government policies	X				
Persistent community eruption & interference					
Improper project development timing & scheduling		X			X
Improper project financing					
Death of owner/client/investor					
Land disputes					
Improper project planning & design					
Climate/natural disaster					
Increase of material cost/shortage	X				
Incompetent project manager					
Leadership instability					
Lack of project risk assessment					
Disapproving economic conditions/crisis					
Poor marketing strategy					
Disputes between parties involved in contract					
Rework					
Payment delay					
Incompetent controlling & monitoring					

(Source : Summary from the literature).

The interrelation of each causes in **Table 2 (a)** is presented in **Diagram 2 (a)**, for the purpose of showing how could each factor of causes have the possibility to relate to one another in the incompleteness of a building project.

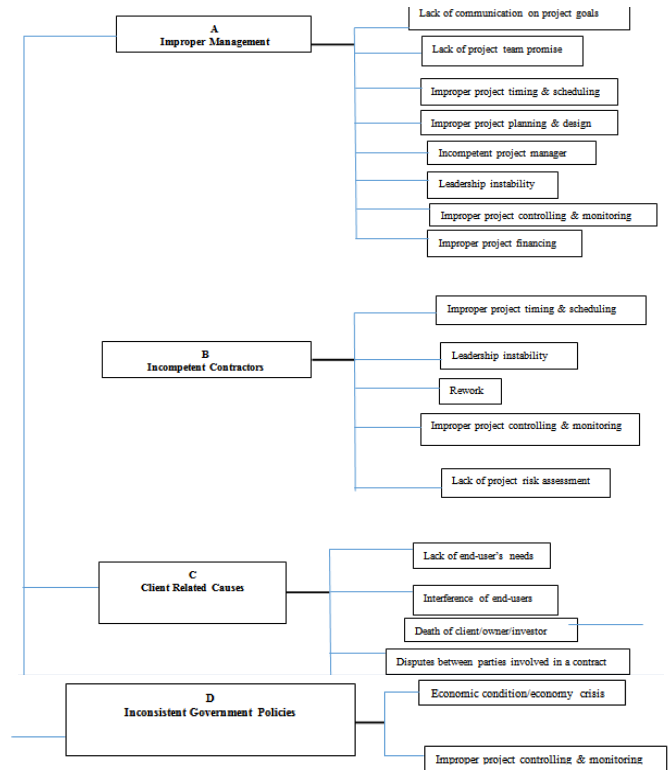


Diagram 2 (a) : Causes of Abandoned Projects

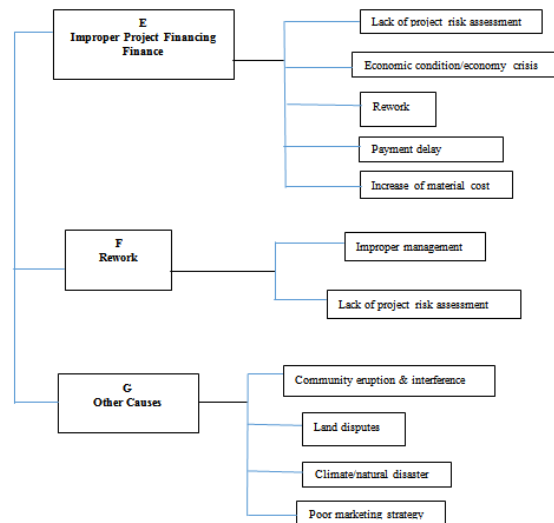


Diagram 2 (a) continued: Causes of Abandoned Projects



Diagram 2 (b): Abandoned Low Cost Housing Projects in Malaysia (Source : [2])



Diagram 2 ( d ) : Reaction of End-users (Source : [2])

Based on Table 2 and Diagram 2, it could be concluded that the improper management of a construction project stands out compared to other causes, where it could give an adversarial effect and influence of other aspects of the activity, work and progress of a project. In diagram II, causes from text box A to F, are most notably related to managerial aspect of a construction project, including housing projects itself. The current statistic of abandoned housing projects in Malaysia is shown in **Table 2 (b)**.

Table 2 (b): Statistics on Abandoned Housing Projects According to States Year 2014

STATES	QUANTITY		
	PROJE CT	UNIT OF HOUSES	BUYER S
SELANGOR	25	12,077	8,834
JOHOR	11	4,104	3,084
NEGERI SEMBILAN	5	1,165	999
PULAU PINANG	2	1,550	1,337
KEDAH	3	860	209
PERAK	6	822	425
PAHANG	2	414	299
W.P KUALA LUMPUR	2	1,070	573
KELANTAN	1	39	29
MELAKA	1	554	502
TERENGGANU	-	-	-
PERLIS	-	-	-
TOTAL	58	22,655	16,291

(Source : [2])

### 3. REHABILITATION OF ABANDONED HOUSING PROJECTS

Rehabilitation of a building is also closely related to building restoration, where the U.S. Secretary of Interior's standards, [19], describes it as a particular treatment approach and philosophy within the field of architectural conservation. It is also according to them that the terms of restoration is defined as the act or a process of accurately depicting the form, features, and character of a property as it is appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work is done here to make properties as functional as possible and to make sure it is appropriate within a restoration project.

In the purpose of rehabilitating a building, there are orderly and adequate approaches that has to be followed by architects and engineers in the process of rehabilitation of the buildings. It is important to know and identify the system and choices made in the process of rehabilitation of the buildings, so that the living conditions of the occupants are improved, and the architectural and structural aspects of the building is preserved within the community as well, for the present and also in the future.

In the process of rehabilitating a building, [20] have elaborated that the first and foremost party in this matter is the owner, regardless if it is an individual, from the private or people acting as a group. In all cases, the owner is the one to give the green light for the desire to improve, to do business or simply just to keep a building standing with its' designated purpose. The second most important parties in the rehabilitation process is the architect and the engineer, who are the qualified professionals with huge responsibility and burden on their shoulders in directing the various stages of the rehabilitation collaboratively with other professional disciplines. Then comes the third important party of this process that is the contractor, with the vital role of executing the rehabilitation process successfully with all the specified requirements. Overall, the process of rehabilitation should be handled by a team of professionals that are particularly trained to face the complexity of the rehabilitation works intended.

Generally, there are some stages in the rehabilitation process that have to be carried out in order to achieve the main objective. The stages explained by [20], are as follows :

Stage 1 : Preliminaries, which involves the client's decision to take action on the abandoned building, considering the purpose and function of the building, and the actual end-users importance as well.

Stage 2 : Multidisciplinary studies (Analysis)), which is based on precise disciplinary research to analyse social, historical, architectural and construction aspects of the abandoned building.

Stage 3 : Diagnosis (Synthesis), is where the information collected during the previous phase is synthesizes, issues and the causes of it are explored in intention to produce an overview of the building's potentials and also shortfalls.

Stage 4 : Reflection and decision making, here the client's ideas for the rehabilitation work are considered and is looked into to see if it is possible to inject those ideas with the reality of the building, its' heritage values, financial requirements, etc.

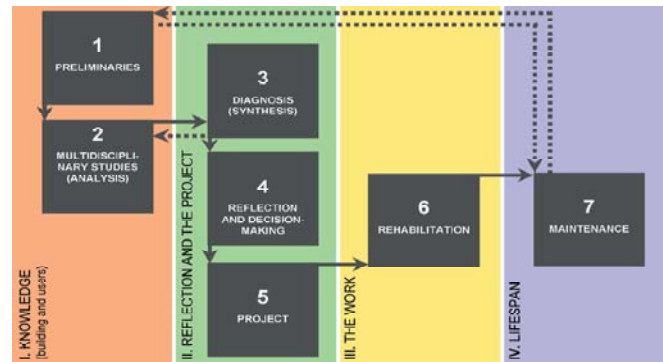
Stage 5 : Project, where in this stage the drafting of the project document that enables the contracting, constructing and controlling of rehabilitation is done here.

Stage 6 : Rehabilitation Work, having passed through these stages, the rehabilitation process will be far more meticulous with preserving the building values, injecting more to the client's needs in the best possible way. The contractor and his collaborators play the vital role in guarantying the physical quality of the rehabilitation work.

Stage 7 : Lifespan and Maintenance, which comprises of cleaning works, repairs and renovations in a smaller scale to

be carried out according to a specified period of time throughout the building's lifespan until future rehabilitation work. In this stage, periodic inspections to detect deficiencies and new needs before the building begins to decline, is an important factor to be carried out.

All these stages are illustrated in **Diagram 3**.



(Source: [20])

All stages and works in the process of rehabilitation should be looked into thoroughly in order to come up and make better decisions, and to able to do so a proper and efficient team should come together in successfully completing the rehabilitation work, to produce the building with injecting all the qualities and characteristics, and not overlooking the original function of the building that was desired in the first place. The rehabilitation process of buildings is somewhat the logical and systematical approach that could be foreseen as an ultimate lead to the restoration of any housing projects.

#### 4. REHABILITATION MANAGEMENT IN ABANDONED HOUSING PROJECTS

According to the [21], the function of management in business and in organisations is to coordinate the efforts that has been poured out by people to accomplish the goals and objectives, by using available resources efficiently and effectively. The whole terms of management as explained by [22], comprises of planning, organizing, staffing, leading or directing, and controlling an organization, and taking the outmost efforts or initiative to accomplish a goal. Management could also be seen as resourcing, encompasses the deployment and manipulation of human resources, financial resources, technological resources, and natural resources [24]. Management is also categorised as an academic discipline in social science, where the object of study is the social organization. In a definition given by [23], management is the transformation of resources into utility, where the management process is one of the factors of production along with machines, materials and money. [25], sees the basic task of a management as something double, especially in marketing and innovation. He identifies marketing as a key essence for business success, but

management and marketing are generally understood as two different branches of business administration knowledge. As for author [26], the specific definition of European Management is considered to be a cross-cultural and societal management approach based on the interdisciplinary principles.

A proper management requires effective communication, a proactive environment, motivational attitude among team members and some sort of progress or outcome of a task. In the perspective of [27], who was one of the most influential contributors to modern concepts of management, considers management to have six functions, which are : (1) forecasting, (2) planning, (3) organising, (4) commanding, (5) controlling and (6) coordinating. In the 20th century, [31], explained that business management consists of six separate branches, which are : (1) financial management, (2) human resource management (3) information technology management, (4) marketing management, (5) operations management or production management and (6) strategic management. In the 21<sup>st</sup> century, the definition and explanation of the basic functions, basic roles and skills in management by [28], is shown in **Table 4**.

**Table 4 : Basic Functions, Basic Roles and Skills in Management**

Basic functions	Definitions	Basic roles	Definitions	Skills	Definitions
Planning	Making decisions on the needs for the future and coming up with plans for action	Interpersonal	Requires coordination and interaction with employees	Political	To build a power base and establish connections
Organising	Confirming the human and nonhuman resources are put into place	Informational	Requires handling, sharing, and analyzing information	Conceptual	To analyze complex situations
Coordinating	Creating a structure that gives surety on the organization's goals so that it could be accomplished	Decisional	Requires decision-making	Interpersonal	To communicate, motivate, mentor and delegate

Commanding	Determining the actions to be taken in a situation and getting people to do it			Diagnostic	The ability to visualize most appropriate response to a situation
Controlling	Inspecting the progress against plans			Leadership	The ability to lead and provide guidance to a specific group
				Technical Expertise	One's particular functional area, [29]

Having a proper look into the aspects and stages of management, could lead to a successful completion of any project or work with the required standards and quality. It also enhances the leadership and the working quality, and eventually increases the level of expertise among the people in the working organisations, which ultimately brings to the execution of a work or project successfully. The improper management in a project team or organisation, is contributed by various aspects such as inadequate planning, design, controlling, monitoring, leadership instability, improper timing and scheduling, incompetent projects manager, inadequate financing and cost control, etc. In the inception point itself, all the downfalls and lacking aspects of the managerial process should be taken into account, and further on relating it to a more systematical approach and process, from stage by stage, could help towards the restoration of abandoned housing projects in Malaysia.

### 5. CONCLUSION

Incorporating all the systems, stages and process involving in rehabilitation and management together, could bring towards the possibility in establishing rehabilitation management towards the restoration of abandoned housing projects in Malaysia. All the criterias in rehabilitation and as well in management should be focused and somewhat related to the factor of causes in the abandonment of housing projects. Although, this paper focuses the restoration of housing projects in Malaysia, the causes of abandoned projects in other countries identified by various researchers should also be studied and focused on as well. From the causes identified from previous studies shows the main cause of project abandoned is improper management with the percentage of 61%, followed by other causes such as inadequate finance 58%, material shortage due to cost and lack of project risk



assessment both with 45%, incompetent project manager 39%, improper project planning and design 35% &, lack of communication on project goals 32%, and improper project development timing and scheduling 29%. On the whole, it could be seen here that all these causes are related and interlinked to improper management.

A proper and systematic approach on rehabilitation management starting from the inception point itself of any project restoration, could be able to lead towards the successful restoration of housing projects in Malaysia.

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## REFERENCES

- [1] Ministry of Housing & Local Government, "Problem Based Housing Projects in Malaysia", Putrajaya, Kuala Lumpur, 2011.
- [2] Ministry of Housing & Local Government, "Statistic for Abandoned Housing Projects in Malaysia", Putrajaya, Kuala Lumpur, 2014.
- [3] Kabit, A., "Construction Industry Development Board (CIDB) Malaysia 2010 Annual Report", Kuala Lumpur.
- [4] Mrema, Liberatus, Mhando, K. and Simon K. "Causes of Failure of housing projects : case of unfinished buildings in Dar Es Salaam", URI: <http://hdl.handle.net/2263/10363>, 2005.
- [5] Ihuah, Paulinus, W., & Benebo, A. M., "An Assessment of the Causes and Effects of Abandonment of Development Projects on Real Property Values in Nigeria", *Impact: International Journal of Research in Applied, Natural and Social Sciences*, vol. 2, issue 5, May 2014, pp. 25-36.
- [6] Ofori, P.A., "A Model for Reactivating Abandoned Public Housing Projects in Ghana", *Civil and Environmental Research ISSN*, vol.6, no.3, 2014.
- [7] Ihuah, P.W., & Fortune, J.C., "Toward a Framework for the Sustainable Management of Social (Public) Housing Estates in Nigeria", *Journal of US-China Public Administration*, vol. 10, no. 9, pp. 901-913, 2013.
- [8] Ihuah, P.W. and Eaton, D., "A Framework for the Sustainable Management of Social (Public) Housing Estates in Nigeria: a pilot study", *A Paper Presented at RICS COBRA Research Conference*, New Delhi, India, 2013, (available at [www.wrics/cobra.com](http://www.wrics/cobra.com)).
- [9] Olusegun, A.E. and Michael, A.O., "Abandonment of Construction Projects in Nigeria: Causes and Effects", *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)*, vol. 2, no. 2, pp. 142-145, 2011.
- [10] Efenudu, F. O., "Causes and Effect of Abandonment of Project on Property Value; A Case of Port Harcourt", Unpublished First Degree Dissertation, Department of Estate Management, Faculty of Environmental Sciences, Rivers State University of Science and Technology, Nigeria, 2010.
- [11] Oyelola, W., "Engineers proffer solutions to project failure", Lagos: The Nation, The Nigerian Daily Newspaper, pp. 32, August 2010.
- [12] Hicks, M., "Project Abandonment: Separate Legal Concept", An article placed on internet under google search on project abandonment, 2008.
- [13] Akindoyemi, J.A., "Housing in Nigeria National Development", *Lagos: Niser Reprint series No 83, Economics and Social journal*, vol. 14, no. 3, pp. 315, 2005.
- [14] Adeleke, S.A., "Abandonment of Federal Government Low-Cost Housing Estate", An unpublished HND project Submitted to Department of Building Technology, Federal Polytechnic, Offa, 2005.
- [15] Aibinu, A. A. and Jagboro, G. O., "The Effects of Construction Delays on Project Delivery in Nigeria Construction Industry", *International Journal of Project Management*, vol. 20, pp. 593-599, 2002.
- [16] Chan, A.P.C., Scott, D. and Lam, E.W.M., "Framework of Success Criteria for Design/Build Projects", *Journal of Management in Engineering*, vol. 18, issue 3, pp. 122-8, 2002.
- [17] Hughes, M.W., "Why projects fail: The effects of ignoring the obvious", *IndEng*, vol. 18, pp.14-18, 1986.
- [18] Mark, S., "Abandoned building models for legislative and enforcement reform", Trinity College, Hartford U.S.A., 1984, Available at: <http://www.trincoll.edu/depts/ten/>, Research- Reports (accessed on 22/08/2014).
- [19] U.S. National Park Service, "Secretary of Interior's Standards for Restoration", Retrieved 20 August 2014.
- [20] RehabiMed Method, "Rehabilitation of Buildings", Traditional Mediterranean Architecture, 2007.
- [21] Business Dictionary of Management, "Management", Retrieved 20 August 2014.
- [22] Hopper, T. and Powell, A., "Making Sense of Research into the Organizational and Social Aspects of Management Accounting: A Review of its Underlying Assumptions", Article first published online: 5 May 2007, *Journal of Management Studies*, vol. 22, issue 5, pp. 429-465, September 1985.
- [23] Malik, F., "The third act in the crisis". 9 July. 2010. [www.malik-management.com/en/about-us/malik](http://www.malik-management.com/en/about-us/malik), accessed on 2 September 2014.
- [24] Simons, R., "The role of management control systems in creating competitive advantage: New perspectives", vol. 15, issues 1-2, pp 127-143, 1990.
- [25] Drucker, P.F., "Managing Oneself", Harvard Business Review, Claremont Graduate University, 1 January 2005.
- [26] Kaplan, A., "European Management and European Business Schools: Insights from the History of Business Schools", *European Management Journal*, 2014.
- [27] Fayol, H., "Principles of Management", 1925, [www.mindtools.com>team management](http://www.mindtools.com>team management), accessed on 1 September 2014.
- [28] Stroh, L. K., Northcraft, G. B. & Neale, M. A., "Organizational Behavior: A management challenge", Mahwah, NJ: Lawrence Erlbaum, 2002.
- [29] Kleiman, Lawrence S., "Management and Executive Development", Reference for Business: Encyclopedia of Business, 2011.
- [30] Makalah, C., "Abandoned Construction project", A paper presented at *International Conference on Social Sciences and Humanities*, 2008.
- [31] Giddens, A., "A Contemporary Critique of Historical Materialism", Social and Politic Theory from Polity Press 1, University of California Press, pp. 125, 1981, retrieved on 2 September 2014.