THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT

Invigorating the 'Lost Theory' in Project Management, Quality Control Review from Quality Finance: Ghana in Perspective

Dr. Apea-Bah Cyril Swithin
Principal Accounting Officer, Department of Finance Section,
Electricity Company of Ghana, Ashanti SBU, Ghana

Abstract:
The study brings into focus the 'lost theory' designed as quality control from the eye of the law into project management decisions. The decisions reflected are by quality finance, analysed from investment appraisal decisions with substantial financial commitment. The study develops questions to quality decisions on road and equipment infrastructure projects. The outcome is surrounding fatalities from the decision rule of quality finance, bring into importance the actions and inactions of professionals. Therefore, the tool to forestall quality control from theories designed is from Hammurabi edicts aligned to country-specific laws. The identified issue as an externality, risk should be scientifically determined in quality decisions on finance. The study's main purpose is to cause the cognisance in energising the requisite laws for quality control to be established in infrastructure projects. As a result, the statistical consideration needed is the relationship, and correlation of quality control to quality finance decisions from investment appraisal tools, else the finance concept into projects decision is a defeat computation. The study recommends the statistical outcome study from research methods.

Keywords: *Lost theory, project management, quality control, road infrastructure projects*

1. Introduction

The term 'invigorating' described is as 'energizing, revitalizing and reviving' in the study applying the 'term' on quality control in project management, a tool enforcing quality decision on quality finance. These are descriptions that expand from a masquerade model, and the masquerade, a pretext descriptor hidden from the culture of fear, uncertainty and risk-averse.

The study discusses the requisite life that the concept of quality control should thump, on humanity in project management as a theorem. There is far, and wide philosophical thinking when reviews conducted are on theorems classified in project management. However, these reviews of high thinking on projects find risk as the tool that sieves viable decisions to be non-viable. Therefore, finance as a concept in projects holds a defeat outcome when scientific decisions crafted are from investment appraisal methods.

In furtherance, from the quality control point of view project management is designed. The study on the concept of project management develops from (PMBOK® Guide, 2013) the Project Management Institute's (2013, p.3) description of the project, a temporary[i] enterprise that comes into reality at a point in time to generate an exceptional result in the form of a product or service specific.

The result has significant project management limits or constraints emanating from the elements of cost, time, resources, scope and quality, allied to risk as the setting on the quality finance theory injected. The derived elements limiting project management also concludes on quality as the output, and where the externalities of risk not controlled from quality as an assurance determinant, proves that quality finance theory of determining cost is baseless.

In the concluding outcome, quality control needs an introduction from the tenets of adhering to a specified procedural result from the planning stage, that determined is with cost element free from any externality, and that a negative, concluding result have a consequence invoking from the 'lost theory'.

Therefore, the negative, concluding result from quality control, the 'lost theory' is determined by the laws of Hammurabi (1792-1750 BC) the King of Babylon. The laws of Hammurabi on projects specific, tasked over-lords as supervisors, and third-party persons on contract to control value decisions with quality results for achieved purposes.

In aligning the laws of Ghana on projects for quality derivatives, the study injects the drive for further study on the same knowledge base in perspective to other countries not from West Africa.

1.1. Conceptual Review

The concept of the study develops on the review of various studies identified on project management, investment appraisal financing, quality management and control, cultural dimension, risk and laws.

1.1.1. Theoretical Thinking

In reviewing the work of Terry Williams (2017), on risk deduction came 'the nature of risk in complex projects', as the study articulates that risk analysis in complex projects is important. However, the systemic risk identified is along the continuum as causal chains. These are purely human interventions difficult to address, but the actions of management are prime. In furtherance, a complex structure is embedded in the systemicity determining, drawing lessons from the seven (7) prime risks appreciation to the concept from;

- The combination of risks and human reactions,
- Pace and management actions,
- Individuals within the parties,
- Inter-personal relationships between the project parties,
- Contracts between the project parties,
- Culture within the project parties, and
- Changes to the project parties.

In analytical considering the study, the third party should appreciate the result of their work, and evaluating the systemic nature of risk.

Also, in determining the risk management impact assessment, Jovanović et al. (2016) articulates the risk analysis from the objective of the study as the analyses of the impact on essentials of risk management processes that are at the Strategic Investment Projects (SIP) in South East Europe (SEE). They achieve the goals of the project given the impact of the project basics on the risk management process.

The significance of the risk features harbouring, are determined through benchmarking, which agrees through the judgment of project teams in action to the diverse segments of their work.

The study of Jovanović et al. (2016) further reviews the various literature in the field of the concept that success of SIP in risk management (Hussein and Klakegg, 2014;Peixotoet al., 2014;Carvalho, Patah, and Bido,2015) analysis for decision makers. Also, from the reviews of (Enescu, Enescu and Tudorescu, 2014; Marcelino-Sádaba et al.2014; Ameyaw and Chan, 2015), the significant relationship on the methods used for analysis and evaluation of risks, the study develops a second hypotheses of the application on the methods for risk analysis, and an assessment directly related to risk factors whose significance are for project risk management deriving.

In furtherance, through the period, the Babylonian law draws attention from the source and origin of methodical growth of contemporary law as (Ion,2013) develops, on the study of the 'civil and criminal rules of the Babylonian law'. From more than 4,000 years since the law has been in force, it reviews on (5) five thinking of,

- Regulation of property: contained in the 282 pieces of writing are the regulated property, public administration, trade and obligations, family law, criminal law, and the maritime law to mention as summarised.
- Regulation of contracts: copious contracts declare the agreement against eviction, guarantees the purchaser of the undisturbed make use of effort against the deed of third parties.
- Family law: the basics focus on marriage that should be, by and large monogamous. The husband has to be committed to only one wife. There are barriers to marriage.
- Successions: it evolves that, heritage divided is according to the number of children at present. Furthermore, the advantaged position of the eldest son rewards the plan of equality, which is apparent mainly in the substance of succession
- Criminal law: during the period, the slave law of hammurabi was the criminal law from blood retaliation. Through further studies, there were cases provided by the code, and the prime case for attention is; - when an architect builds a shaky house that fall and kills the son of the owner, as the penalty, the son of the architect shall be killed. In furtherance, there were crimes describes as;
  - Against people: described as murder with the penial of death, whether through negligence or accident. Also, in the case of a false testimony or complaint, the penial is through death.
  - Furthermore, service crimes: the described situation in which a medical doctor through in-expertise causes damage to others, the hand is amputated. Likewise, a judge establishing a prejudicial decision could be disciplined with a higher fine 12 times the value of the damage.
  - Also, on crimes established against property: an act of stealing is penalised with a higher fine 30 times the value of the asset. Also, a person that steals during a fire outbreak, the person is burnt, and where the person passed through a wall into another one's property, the person is hanged on the spot of the offence.
  - More so, on crimes against family: adultery penalised is by death, and accusation has stiffer penalties same.

However, social classes showed the posture of classed punishment. An indicator that, penalties meted out depends on the social status of the person in the act.

In respect to the composure of the law, it is identified that countries have their position specified to contemporary issues on criminal and civil offences and procedures (Criminal Procedure Code, 1960 (Act 30); Ghana Const. 1992 (rev. 1996)) to protect their space. However, the positions from further studies to an extent align with Hammurabi's (1792-1750 BC) posture.

In reviewing further papers on quality management, (Gupta, McDaniel and KanthiHerath, 2005) 'Quality management in service firms: sustaining structures of total quality service', though a conceptual work differing from the path inferring to law, rather the posit reveals the truth.

The developing conceptual position on understanding the relationship amongst the sustaining structures supporting total quality service, the philosophy concludes on customer satisfaction. The study attains the thinking of Deming's management model into previewing customer satisfaction and sustaining structures. At the developing of value from input to concluding output, leadership, organizational culture and employee commitment conclude as the three constructs of significance in accomplishing total quality service.

The paper is a value for the concept in evaluating customer satisfaction and sustaining structures relationships.
The question of the reviewer indicates that from the position of leadership failure on the importance of the concepts developed, should they be continually trained to perform, or from eating place basis customers with complaints, should management keep quiet? These are the rudiments that, projects start and end from a continuum of quality input through quality processes to achieve the quality output, with quality finance injection amidst the externality of risk.
Furthermore, culture is harnessed from Hofstede's posture from (Sjoerd, Kostova and Roth,2016; Syed and Malik, 2014), centering on the country-level culture studies and measure the way further studies have developed in exploring cultural dimensions ahead of Hofstede's position, in deciding the state of country effects, cultural effects, and showing the importance of the effects of these cultures in issues. The study tests the strength of culture and its conclusion to the Hofstede-inspired research at the country-level for analyses. The position of other papers in the subject of Hofstede's (1980) culture assesses Kirkman, Lowe, & Gibson's (2006) as identified that the ideas have contributed immensely to scholars' work in international business at the last decade.
The position developed does not align to quality control as the factor tying the decision holder to rigorous control as the law, in which their decisions resulting in the negative outcome of loss are the problem. The posture of loss described is;

- Loss of humankind lives, and
- Substantial financial loss on the loss of major equipment and infrastructure.

Therefore, the various literature reviews on the concept of the study, positions the develop theories from the primary conceptual framework.

1.2. Purpose of Study

- The purpose of the study is to cause the cognizance in energizing the requisite laws for quality control to be established in infrastructure projects.
- Also, to instill into professionals' the appreciation of their action and inaction on infrastructure projects resulting in loss of substantial financial commitments and humankind lives.

2. Background of Study

The study brings into focus the 'lost theory' crafted from quality control whose adherence identified is as not followed in substantial cash-outflow into project decision-making. The underlying feature developed is from the limiting elements of cost, time, resources, scope and quality, where risk described it as the externality driver on projects.

2.1. Project Management

The study determines project management from the understanding of the professionals in the subject area, reviewing from a temporary commitment with a definite start time and an end time, uniquely with the cost element (PMBOK® Guide, 2013).

The uniqueness in describing the concept developed is from the limiting element of cost as an input, developing through a continuum to a concluding output of quality amidst the drivers of risk, an externality.
The outcome results from project management models of high competence, as the quality drivers. The study does not go into these derivatives, as risk project theorems have supporting baselines when developing quality decision rudiments.

However, in decision-making on project management, the ideal of Guo (2008)on the DECIDE model of the six decision rules highlights the specifics of team players, which facilitates on quality rudiment. The model is;

- Defining of the problem,
- Establishing of the constraints,
- Collection of all substitutes,
- Identifying of the best substitute or choice,
- Developing and implementing of an action plan, and
- Evaluation and monitoring of the answer and scrutinising the responses gathered.

In concluding, where value commitments developed are the externality driver, can be silenced from the quality decision rudiment.

2.2. Quality Control

In deriving quality control, the concept of quality control is vague when not determined from the quality planning stage through a continuum to quality control and quality improvement as described by Juran from the trilogy model on achieving of value.

The study of Juran and Godfrey (1999),express quality as the freedom emanating from the deficiencies designed as, freedom from errors requiring work to be redone severally, or work resulting in the field failures, customers displeasure of results, and customers' negative reactions.
The Juran trilogy, attests by Pyzdek and Keller (2013), determine by Juran and Gryna (1988) are that;

- In developing quality planning, it is the action of initiating the product or procedure vital to ascertain the required need of the customer,
- Also, quality control is the process that is employed by the operational processes to guarantee the processes meet the product, service and procedure required, that is, defined in the planning phase, and
- The quality improvement plans to achieve the height of performance that is unprecedented. It is the phase that is extensively better than any past phase.

Therefore, these are the facts developed as the measuring 'whip' for quality management on project infrastructure commitments.

2.2.1. Quality Finance Reviewer

In reviewing quality finance from an infrastructure project building block, there is the need to be acquainted with whether the concept of cost/benefit analysis on providing the quality decision in cash-outflow can be assessed with humankind life. Therefore, cost/benefit analysis on infrastructure project can be described as the process of weighing the cost and associated benefit to decisions taken on the project, from the elements of timelines schedule, scope, resource indicators and quality within the externality environment of risk.

In concluding, the cost/benefit of the infrastructure project gives the underlying cost and benefit, amidst the element of risk to the cash-outflow envisaging the cash-inflow as the benefit. As a rational business entity, the benefit of giving a higher value to the business is the preference, within the favourable elements of time, scope, and quality. There is no other cost determinant in-line to this drive determinant.

The outcome used is in adjudging to the rules developed from investment appraisal method of the Net Present Value (NPV), as it discounts the investment and returns. Also, an Internal Rate of Return (IRR) derived along the NPV, answers a higher value to the cost of capital showing that the NPV is an accepted value.

The NPV[ii] formula invoked is the table 1, and when discounted representing the probability of negative expected return shows risk, the externality an unfavourable result.

$$\text{NPV} = \text{CF x } \frac{1-(1+i)^{-n}}{i} - \text{IO}$$

where,

CF = Cash inflow
IO = Initial cash investment
i = required rate of return
^ / n = number of period or years

Table 1: NPV Formula
Source: Gitman, Et Al. (2013),Fabozzi And Peterson, (2003) &Hill, (2008) [18, 19, 20]

The decision rule criteria states that;

- Where, the NPV > 0, the project is accepted, NPV < 0, the project is rejected.

The decision rule stating NPV > 0, the business stands to recover cost, and that owners' equity is improved.

2.2.2. Internal Rate of Return (IRR)

The decision rule states that, the IRR > cost of capital, the project is accepted, IRR < 0, the project is rejected.

In concluding the result from the NPV calculation (Gitman et al. 2013; Fabozzi and Peterson, 2003; Hill, 2008)determined for the quality decision rule, the rule indicates that;

- Positive NPV shows that project earnings should exceed the cost, as such, a profitable decision rule, and
- Negative NPV shows a net loss and not a viable decision choice.

In furtherance, the discount rate as calculated is differently calculated. However, the base is the cost of borrowing cash on project finance which is the level of risk.

In concluding on the cash-outflow and cash-inflow in whatever means such as social and economic benefits, the decision's result needs to be favourable to the consumers and the stakeholders purposefully. However, the result from the conclusive evidence as the case study purports contrary, from Ghana the focus of the study.

The road infrastructure projects show that humankind lives are traded-off in computing decisions at minimal cost over short timelines mostly from the political expediency eye. It is a painful act to receive the tendencies of managing project constraints, whereby there is nothing concrete to manage but rather waste, further developed as 'muda'. It should be-kick out when we are painfully deriving quality project financial cash-inflow.

In the cultural dimension of Hofstede's (1933) appreciation that authority held is with power, instructions are not challenged or discussed as to the quality flow. The results are not questioned whether they fail into a loss of substantial financial result.

Therefore, external parties' managerial injection to change such working cultural dimension is an excellent system to merit viable financial flow. However, change is an unfavourable element for further knowledge setting for studying.

Project risk infrastructure teams have been managing constraint itself as a constraint, and humankind lives loss through such project risks. Therefore, the big questions develop that, 'what are we managing?' In a derivative determinant from cost/benefit analysis, can humankind lives loss through infrastructure projects be valued?

Quality control is the ingredient for any decision-making, and the study reflects on the provisional information on road accident by the National Road Safety Commission (NRSC), reporting of 180 people killed, 1,171 people suffering from various degrees of injuries from 1,071 road crashes as at 31st January 2018, according to the Ghana News Online on 26th February 2018 cannot be taken for granted. Among various statistical consideration, emerging danger alerts from road construction or work zones, contractors' failure to install appropriate traffic management of safety signs, open trenches, and physical objects without protection. In furtherance, roadway markings, road signs, street lighting and safe crossing facilities absence are contributing factors on the NRSC list of crashing leading to increase in numerous fatalities of statistics.

The professionals' in-charge of each activity along the continuum of a process of worth, where the activities pay lump-sums of remuneration, the professionals need to be made aware of the other results of their failures, which are mostly humankind lives, being traded-off.

The study on the statistics of death toll emanating from the road infrastructure alone for the period from 2000 to 2009, a nine (9) year period, from the table 2 follows as;

Kind of Injury	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Slightly injured (%)	51.60	53.70	50.90	52.60	54.40	56.20	52.70	49.30	53.00	54.20
Seriously injured (%)	37.60	35.10	38.10	36.80	33.70	32.50	36.00	38.30	35.30	33.70
Killed (%)	10.80	11.20	11.00	10.60	11.90	11.30	11.40	12.40	11.80	12.10
Total (No)	14,664	14,833	15,075	16,247	18,436	15,838	16,348	16,416	16,455	18,496

Table 2: Statistics on Death Toll-Road Infrastructure – [2000 –2009, 9-Year Period]
Source: Table 17 - The Percentage Distribution of Road Crash Casualties (2000-2009): Mor&H, Mot, GSS, Transport Indicators Database (March, 2011)

The source of data and other studies in relation to the fatalities on the country's road infrastructure cannot entirely be attested to problems with the architecture of the infrastructure. The knowledge resource does not identify statistical knowledge on problem road infrastructure acknowledged as death traps. Also, on major equipment damages, data is difficult to access from the public sector.

In furtherance, reviewing the study to the loss of valuable equipment of substantial cash-flow worth in the organisations owned by the Government of Ghana, quality control in contract decision-making emits. There is the saddened theory that quality control is a defeat principle from professionals who inject substantial financial decision inflows to these Government owned organisations, but the culture of fear and favouritism systems in place is a weak financial influx of profit-making as a never thought-through.

It, therefore, beholds that quality control is baseless in such quality backed decisions, reviving from quality finance. However, such decisions are made by professionals, whom after such weak infrastructure projects, authorizes the completion as within professional standards, and the payment of viable contract sums.

The conclusive element now shows that quality control suffers risk in substantial financial investment.

In quality finance decision-making, conclusive developing from the ideal of Guo (2008), variation in infrastructure project is a quality control defect, an introduction of a negative externality that should not be accepted. However, where Management approves in contracts as variations are unforeseen contingencies that keeps-on crystallizing along the path of committed value decision-making weakens quality finance results that discount investment and associated returns.

Therefore, these are the basic weaknesses professionals keep quite on as the fear of the uncertain, driving from the culture of the authority's injection of failure in a system that cannot be discussed to value, rather gross over.

In concluding, the position states that, the laws of Ghana align to Hammurabi's (1792-1750 BC) specific edicts in decision-making work that injects the acceptance to create value in cultures of value cash injection.

The study, therefore, develops further on infrastructure investment of which associated is the element of risk on substantial cost elements. Therefore, (Gitman et al., 2013; Fabozzi and Peterson, 2003; Hill, 2008)investment risk according to the study is the probability in relation to the earning from the returns which is less than the expected return, throwing the highlight that the chance which is greater in perspective to a lower or purported negative return, the outcome concludes that the investment is risky.

It concludes that risk describes as the chance where events of unfavourable nature happen from elements that can be controlled by quality.

However, useful variant techniques purposing on similar trend are the Social Return on Investment (SROI) analysis, and Risk-Benefit analysis tools in determining where quality control is positioned.

2.2.3. The 'Lost Theory' –The Law

In reviewing from the 282 laws of the King of Babylon, Hammurabi (1792-1750 BC), where decisions taken are on infrastructure projects with substantial financial injections do not merit the quality finance result of expected return, rather an element of humankind lives loss are ascertained on the process.

The laws of Hammurabi (1792-1750 BC) (Hakpell, 1904)emanates from the system of lassitude behaviours shown toward neighbours, and the drive on quality systems as the control mechanism.

Hammurabi (1792-1750 BC) described as an egocentric, was full of ancient paradox hailing himself to the status of a god. However, his control system was intense with the set of laws that injects justice, fair treatment of humankind toward humankind. The system of lassitude behaviours listed in the set of laws[iii](Hakpell, 1904)had tough and harsh punishment, specific and explicit laws unsympathetic with a penalty of death, meting out pain or loss of body parts, and others.

Therefore, devolving quality control from this drive to a larger extent, merit the outcome of the decision.

The requisite laws of Ghana as an import into project management, a quality control assessor is the drive to defend on viable cash-outflow with the expected return on the investment achieve less any constraint element. The assessing law governing default in the relevant jurisdiction is prime, however concerning the concept in finance in deriving the annual percentage rate (APR) is a standardized way in calculating and evaluating interest rates on a yearly base. Therefore, the extraction of interest rates using the APR is a requirement through regulation in the United States and the United Kingdom on behalf of mainly loans to humankind accepted nation-wide. From this position, project management should also follow a regulation in specific to quality control rule that, when projects 'cave-in' injuring or with requisite to huge costs, 'the professional officer' who certified for the approval of the project have to face the full rigours of the law specific. The state of Hammurabi is a clear-cut index for quality control on viable projects.

Therefore, the 'lost theory' to a larger extent is the law to prosecute professionals whose actions or inactions on infrastructure projects does not emit quality control processes, and instead of a positive expected return, humankind lives are rather trade-off.

Under project management on the premise of quality management, quality control monitors and processes the certainty to establish that the given request achieved is without fail. However, there is the concept of quality improvement documenting as the deterrence of variation from the given request.

The conclusive element, therefore, positions that quality control is baseless in quality decisions, reviving from quality finance of which from the archives of Hammurabi (1792-1750 BC), King of Babylon, 'heads will have to roll'.

In concluding from the premise on the quality approach, there is the text that, 'if the boat is to surf faster in achieving the planned, the oarsmen have to receive harder strokes of the whip'. Therefore, quality does not accept weaknesses as constraints to be managed, but rather the 'whip' is the answer in project deliverables.

2.2.4. Culture

The study develops culture as the way of life of humankind on quality deliverables. The certainty of fear clasped from an authority on the way of life spans from the cultural dimension concept of Hofstede (2011), where decisions straddling from the culture of fear, uncertainty and risk-averse have negative, concluding results.

In the study of the cultural dimension, Hofstede (2011)promulgate the five deliverables and later concludes on six as determined, power distance, individualism-collectivism, masculinity, uncertainty avoidance, long-termorientation and indulgence. There are the studies of Trompenaars, and Kluckhohn and Strodebeck on varied concepts in analysing the space of culture, and these conclusively affect decision deliverables. The concept identified of Kluckhohn and Strodebeck's of value orientations are; the relationship to nature, time orientation, nature of man, activity orientation, nature of relationships, and orientation toward space that relations to managerial impact inform from the general and specific variations. Also, Trompenaars's dimensions treated the concepts of universalism versus particularism, individualism versus collectivism, neutral versus affective, specific versus diffuse, and achievement versus ascription.

The study appreciates the understanding of the concepts from the Ghanaian cultural dimension of Hofstede (2011) aligning the basics from the other theorists, as power distance is the cosmic distance between the authority and subordinates, from the corporate world. Therefore, in decision-making, the mistakes from the 'top' cannot be questioned than followed to the latter, and the subordinates punished on the resulting mistakes from the decisions taken.

Furthermore, masculinity develops that the 'top' is far more masculine based than the 'base, shop-floor' as feministic. Therefore, in decision-making feminine tendency are not consulted for views than to be accepted as good, and where problems start emanating, the scape-goats taken are from the feminine minority group.

More so, individualism furthers the spirit of favouritism more than the task oriented. Managers are seen in closed offices egotistical. The decisions taken are from the selected few than a team-work base to marshal force into the precise result. The result with a negative tendency tends to be directed quickly to a person or group with an associated punishment. Therefore, the system of fear of the uncertainty drives-in. It is as a result of someone not permitted to associate with a group quickly disassociating for the individuals to celebrate their results. The tendency is that there is no sense of belongingness in a group working together or the teamwork feel. In furtherance of non-associating negative tendencies to someone to own the punishment, systems of failure are crafted with technical jargons to conclude the result of failures.

Therefore, reviewing the concept of Hofstede (2011) negative tendencies emit from the cultures that are not open. In filtering quality decisions from substantial cash injection for infrastructure projects, power distance, masculinity and individualism reviewed have to bare the quality control measure to emit a quality result.

3. Research Methods and Methodology

The research methods and methodology (Rajasekar et al., 2013) populates from the countrywide of Ghana. However, the country has been zone into north and south belts for the study. The heaviest area of road infrastructure project fatality is with the heaviest introduction of the population to the lowest. In a total of 1,000 sample population for the study, and the sample size from a sampling fraction (½) calculated on the sample population to give the sample size of 500.

Therefore, the sample size acknowledged from stattrek (2015, online) (Explorable.com, 2009) is that the sample fraction as developed is equal to the derived sample size divided by the population size, n/N as is ascertained in tables 3 and 4 at the appendix.

The sample size from the population size calculated, follows from(Explorable.com, 2009), as statistically derived in tables 3 and4shown. Therefore, the ideal sample for the study scientifically established is from the table4.

(n) = sample (N) = population size In calculating sample size formulae inversely is; n = N/2 ½ is denoted as sampling fraction (Sf) Therefore; the sample size computing is; Sf = n/N

Table 3: Sampling Design Flow
Source: Study (June 2018)

Strata	The Sector
Population Size = (N)	1,000
Sampling Fraction = (Sf)	½
Sample Size Computed = (n)	500

Table 4 : Calculating of Sample Size
Source: Study (June 2018)

From the purpose of the study, the research design quantitatively determined is from survey interviews marshalled on males and females qualitatively from the north and south belts.

The study develops the series of research problems and questions for analysis from quality control results when viable cash outflows injected are from quality finance decisions of investment appraisal techniques emitting as NPV, IRR, Simulation analysis and Sensitivity analysis.

3.1. Research Questions

The study aims to,

- Find out what respondents' think about the laws on projects reviewing to Hammurabi's (1792-1750 BC) edict on infrastructure projects.
- Assess the position of respondents' specifically on fatalities and sufferings stakeholders suffer, reviewing from Hammurabi's (1792-1750 BC) edict on infrastructure projectsde sign as lack of quality control.
- Establish that professionals have a duty of care and requirement on their actions and inactions when substantial cash outflow decisions are taken.

Therefore, the researches questions introduce are;

- Can the law (the 'lost theory' as 'quality control') turn quality finance (financially appraised positive project result) decisions into quality results?
- Can there be a relationship between quality control and quality finance?

From the established position, the methodology of the study drives from the causality approach (cause and effect) tendency. The concluding effect is that a poor work result is likely to implicate the professional from the stand of the law, and loose remuneration paid. Therefore, quality input resulting to the quality output along the tenets of quality control develops from the cause and effect approach.

In measuring the outcome, the study exposes the weaknesses in systems of quality control, where substantial cash injected is into infrastructure projects with positive financial results to the country, then a few humankind decisions flopping as the derived output.

3.2. Ethical Consideration

The study's survey developments considered are on ethical considerations of Anol (2012)and other studies on ethics that empirical research adheres. Some of the outlines the study develops from are;

- Respect to respondents' personal identity and confidentiality,
- Discussing intellectual property frankly,
- Anonymity,
- Disclosing of personal interest, and
- Specificity and confidentiality of data collected and nothing else.

The ethics in academia develops in achieving the required sampling for the study.

4. Conclusion

In concluding the study, the 'lost theory' develops as 'quality control' process on a continuum of infrastructure project under project management with the externality risk, developed from quality finance to achieve the quality decision result.

Quality finance developed is from the underlying concept emanating from project financing on risk, time (timelines) and quality. For projects to be accepted as worth embarking on, financing addressing has to be ascertained from an investment appraisal concept. Therefore, quality finance of a project determined is from the developed investment appraisal concept injected for a viable financing decision at the planning stage, from the starting of the project through a continuum of quality control to the end of the project.

Project teams do not realise laws on their actions and inactions after completion of project decisions. From history, over-lords were made to be in charge of projects, and any where problems occurred they were made to face the full rigoursof their fate.

Therefore, care taken was from Hammurabi's perspective as the 'lost theory' injection to quality control.

The lost theory designed is as a conceptual framework for project management decisions from the ideals of;

- Quality finance framework on positive acceptance from an investment appraisal tool,
- Cultural dimension framework on personal behavioural work ethics acceptance in teamwork for positive result achievement, and the
- Law framework for committing weakling decision results such as humankind lives loss to penial commitments, the result of value-for-money, a quality-decision input, concluding as the quality-decision viable output.

The research methods developed are the causality approach in statistically determining the responses to interviews and questionnaires from the sampling of males and females for the analysis of the study.

Ethical consideration is a key in statistical study measures in concluding for the required results.

The study recommends the statistical consideration from the research methods and methodology developed for data analysis.

4.1. Further Study and Research

In concluding the consideration of further study and research areas as ascertained is, therefore;

- The study on change is inferring from quality management on project finance.
- The study on the cultural dimension to risk in project finance.
- The useful variant techniques of Social Return on Investment (SROI) analysis, and the Risk-Benefit analysis tools in determining the position of quality control.
- A study on Quality Control in determining the behavioural inferences on construction projects.
- A study on determining the cost of Quality Control.

The developed areas for further study and research, to a larger extent, conclude a valuable finding and discovery to academia and country-wide benefitin an organizational setting or a country.

5. References

i. A Guide to the Project Management Body of Knowledge, (2013) (PMBOK® Guide), Fifth Edition, Project Management Institute, Inc., USA

ii. Terry Williams (2017), The Nature of Risk in Complex Projects, Project Management Journal, Vol. 48, No. 4, pp. 55-66.

iii. Filip Jovanović, NenadMilijić, MakedonkaDimitrova, and Ivan Mihajlović (2016), Risk Management Impact Assessment on the Success of Strategic Investment Projects: Benchmarking Among Different Sector Companies, Acta PolytechnicaHungarica, Vol. 13, No. 5, pp. 221-241.

iv. Hussein, B. A., Klakegg, O. J. (2014), Measuring the Impact of Risk Factors Associated with Project Success Criteria in Early Phase, Procedia - Social and Behavioural Sciences, v.119, pp. 711-718.

v. Peixoto, J., Tereso, A., Fernandes, G.,and Almeida, R. (2014), Project Risk Management Methodology: A Case Study of an Electric Energy Organization, Procedia Technology, v.16, pp. 1096-1105.

vi. Carvalho, M. M., Patah, L. A., and Bido, D. S. (2015), Project Management and its Effects on Project Success: Cross-Country and Cross-Industry Comparisons, International Journal of Project Management, v.33, pp. 1509-1522.

vii. Enescu, M., Enescu, M., and Tudorescu, N. (2014), Points of View Regarding the Evaluation of Decisional Factors in Risk Management Associated to Large Combustion Plants, Procedia Economics and Finance, v.16, pp. 110-114.

viii. Marcelino-Sádaba, S., Pérez-Ezcurdia, A., Lazcano, A. M. E., and Villanueva, P.(2014), Project Risk Management Methodology for Small Firms, International Journal of Project Management, v.32, pp. 327-340.

ix. Ameyaw, E. E., Chan, A. P. C.(2015), Evaluation and Ranking of Risk Factors in Public–Private Partnership Water Supply Projects in Developing Countries using Fuzzy Synthetic Evaluation Approach, Expert Systems with Applications, v.42, pp. 5102-5116.

x. Ion Ţuţuianu (2013), Civil and Criminal Rules of the Babylonian Law, Studies and Scientific Researches. Economics Edition, No. 18, pp. 108-115.

xi. Acts of Ghana, First Republic, Criminal Procedure Code, 1960 (Act 30), available at: http://www.wipo.int/edocs/lexdocs/laws/en/gh/gh011en.pdf, [Accessed on 11th June, 2018].

xii. Atul Gupta, Jason C. McDaniel and S. Kanthi Herath (2005), Quality management in service firms: sustaining structures of total quality service, The Emerald Research Register, Emerald Group Publishing Limited, Managing Service Quality, vol. 15, no. 4, pp. 389-402.
xiii. SjoerdBeugelsdijk, Tatiana Kostova and Kendall Roth(2016), An overview of Hofstede-inspired country-level culture research in international business since 2006, Journal of International Business Studies, single-blind reviewed, supplementary information online at: www.palgrave.com/journals.
xiv. Syed, H., Malik, A.N. (2014), Comparative study of effect of culture on technology adoption in Pakistan and USA, The Business and ManagementReview, Vol. 5 No.1, pp. 42-51.
xv. Kristina L. Guo (2008), A Decision-Making Model for More Effective Decision Making by Health Care Managers, The Health Care Manager, Vol. 27, No. 2, pp. 118–127.
xvi. Joseph M. Juran and A. Blanton Godfrey (1999), Juran's Quality Handbook, 5th ed., McGraw-Hill, New York.
xvii. Thomas Pyzdek and Paul Keller (2013), The Handbook for Quality Management - A Complete Guide to Operational Excellence - (chpt.2,), Second Ed., McGraw-Hill Companies, Inc, New York. [Online], (Available from): https://www.safaribooksonline.com/library/view/the-handbook-for/9780071799249/ch02.html, [Accessed on 11th June, 2018].
xviii. Lawrence J. Gitman, Chad J. Zutter, Wajeeh Elali, and Amer Al Roubaie (2013), Principles of Managerial Finance, Arab World Edition, Pearson Education Ltd, England.
xix. Frank J. Fabozzi and Pamela P. Peterson, (2003), Financial Management & Analysis, 2nd Ed., John Wiley & Sons, Inc., New Jersey.
xx. Robert Alan Hill, (2008), Strategic Financial Management, [Online], 1st Ed., Finance &Ventus Publishing Aps. (Available from): http://bookboon.com/en/strategic-financial-management-ebook, [Accessed: 8th June, 2018]
xxi. Kobert Francis Hakpell (1904), Transliteration and Translation -The Code of Hammurabi, King of Babylon (2250 B.C.), University of Chicago Press Callaghan & Company, London.
xxii. Geert Hofstede (2011), Dimensionalizing Cultures: The Hofstede Model in Context, Online Readings in Psychology and Culture, Unit 2, Subunit 1, Article 8, pp.1-26, Berkeley Electronic Press, 12-1-2011.
xxiii. S. Rajasekar, P. Philominathan, V. Chinnathambi and Srivaikundam (2013), Research Methodology, [Online] (Available at), http://arxiv.org/pdf/physics/0601009.pdf, [Accessed on 12th June, 2018].
xxiv. Explorable.com (2009), Stratified Sampling Method, Proportionate Stratified Random Sampling, [Online], (Available at): https://explorable.com/stratified-sampling, [Accessed on 24th May, 2018]
xxv. Anol Bhattacherjee (2012), Social Science Research: Principles, Methods, and Practices, Scholar Commons, University of South Florida Tampa Library (open access).
xxvi. Republic of Ghana, Ministry of Roads and Highways, Ministry of Transport and Ghana Statistical Service, Statistical and Analytical Report (2000-2009), Transport Indicators Database, March, 2011, p.72.

---

[i]Refer to the PMBOK Guide, (PMI, 2013, p.3), it is described as 'the temporary nature of projects indicates that a project has a definite beginning and end.' It further describes the unique nature of projects, and that the result may be tangible or intangible with the unique nature remaining constant.

[ii]The NPV is the method of determining the current value of all future cash flows generated by a project after accounting for the initial capital investment. A tool used to establish the project with the greatest profit/value.

It is the present value of cash-outflow and cash-inflow over a purported time period, in establishing the profitability of the infrastructure project.

[iii]Refer to Hakpell (1904, p.81),§ 229:'If a builder build a house for a man and do not make its construction firm, and the house which he has built collapse and cause the death of the owner of the house, that builder shall be put to death'.

§230:'If it causes the death of a son of .the owner of the house, they shall put to death a son of that builder'.

§ 231:'If it causes the death of a slave of the owner of the house, he shall give to the owner of the house a slave of equal value'.