Innovations

Effective Application of Corporate Social Responsibility in a Housing Project Life Cycle: Framework Development

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Abstract: *Challenges exist in every aspect of service delivery; and the management of housing projects is not an exception. Challenges have always undermined housing production along the life cycle phases of projects and a resultant effect is housing insufficiency. These project challenges remain a major source of setback to housing projects across various climes, hence the need to address them. A strategy that has shown great potentials in either preventing or mitigating housing project challenges is the application of Corporate Social Responsibility (CSR). Difficulties have arisen as to the best ways to apply CSR in housing projects especially as there is no existent CSR framework to address challenges. However, this strategy targets a more purposeful approach, hence the need for a framework development and validation for the effective application of CSR along the housing project life cycle phases, to address housing project challenges. Opinion was sort from various project stakeholders that are actively engaged in housing projects so as to investigate and determine the most effective and efficient ways to advance projects through CSR. Methods of data analysis adopted for validation includes mean score, standard deviation and content analysis. Obtained ideas were culminated and then transformed into strategies and thereafter harmonized into a flowchart-styled framework for the purpose of effectively applying CSR in the housing project life cycle phases to address project challenges. The framework design and mode of application was validated with high applicability scores.*

Keywords: *Housing Project, Project Challenges, Corporate Social Responsibility, Framework Development, Framework Validation.*

1. Introduction

Corporate Social Responsibility has a number of meanings and is expressed differently. Waddock, 2006; Walker, Segon and Rowlinson (2008) labelled it as corporate citizenship, while Ofori and Hinson (2007) called it corporate benevolence. Others were: global nationality by Tolati (2013); corporate community participation (Halal, 2000; Davies, 2003; Kotler & Lee, 2005); cause-related marketing (Barone, Miyazaki & Taylor, 2000) and corporate transparency by Waddock (2004). Over expansive literature, CSR summarizes

practices that guide firms towards improving stakeholder relationships and interest while at the same time, generating business value (Nogeste, 2006). CSR can then be said to be a self-regulating business strategy that helps a firm to be socially accountable to itself, its primary and secondary stakeholders and the general public in the course of its engagements. In light of this, companies need to be mindful of the nature and effect of the impact they have on all aspects of society, including economic, social and environmental. SatijaKalpana (2009) described CSR as the implementation of socially responsible practices by corporate entities in the process of service delivery. Convergent definitions suggest CSR as being characterized by deliberate corporate effort to improve society and maintain sustainable business development (Ofori, 2008). Dahlsrud (2008) posited that the most commonly appreciated conceptualization of CSR came from the Commission of the European Communities in 2001 which expressed CSR as, ''A concept whereby firms continuously integrate social and environmental endeavours in their business operations and in their interaction with their stakeholders on a voluntary basis''.

A research framework generally provides an underlying structure or model which often supports a research effort and helps to recognize different scenarios with the aim of tailoring various approaches and methods accordingly (Alaoui et al, 2022). A myriad of challenges negatively affects the process of housing development which have greatly affected housing supply. To successfully execute a housing project, the challenges which exist in the life cycle phases need to be addressed. An effective project process requires a good conceptualization, proper planning, a responsible design, efficient execution as well as a proper conclusion. To achieve these, a proper CSR life cycle framework will guide the requirements of housing projects. However, investigations have indicated that CSR frameworks for managing housing projects is lacking in general much less, Nigerian housing development. More so, where CSR frameworks for construction related practices have been developed and deployed in other climes, such frameworks may not adequately address the challenges in the Nigerian context due to policies, availability of resources, technological advancement, the economy as well as the level of CSR awareness.

In consideration of the above, this therefore underscored the need for a CSR life cycle framework which if effectively applied, will provide a coherent and comprehensive guide for preventing and mitigating challenges in housing projects with a view to achieving enhanced project success, which in turn translates to an enhanced housing provision. The proposed CSR life cycle framework was designed with the intention of benefiting primary and secondary stakeholders in the process of executing housing projects irrespective of the size of project. Some of these stakeholders are: the project host communities; suppliers; clients, consultants, government agents and contractors in the built industry.

2. Framework Development

The process of developing a life cycle framework for the application of CSR in the management of housing projects, towards addressing challenges, involved the use of both quantitative and qualitative findings as a result of interfacing with professional stakeholders in the built industry. Both sets of findings centered around the various challenges that deter the advancement of housing projects, the responsible practices which enhance the process of housing development by preventing challenges, CSR strategies which mitigate the challenges in the life cycle phases and the determinants in the implementation of CSR in housing projects. In order to achieve a striking result, three types of shapes were selected and applied in a flowchart framework design based on strengths and purpose, which were a circle which represents wholeness, a number of rectangles which represent stability and a number of triangles representing progression. In the framework, the sole circle represented CSR application in the management of housing projects considering that it was the crux of the framework development. All other aspects of the framework were presented with rectangles excluding the planning and execution phase activities which were presented with triangles because they represent the most challenge ridden, as well as sensitive phases in light of the qualitative research findings.

Arrow heads are strategically placed on their respective lines to indicate direction of flow and movement. The five project life cycle phases were mapped out which include initiation, planning, design, execution and commissioning respectively. The responsibility categories which are economic, ethical, legal and philanthropic responsibilities all have various degrees of impact on all project stakeholders and were arranged sequentially to guide the path of the housing development process. The framework was designed towards achieving clarity, logicality and comprehensiveness for prospective users. Another consideration in the design process was to achieve a framework that would positively arrest housing project challenges through CSR. Furthermore, the framework design sort to achieve a model that can clearly show the practical relevance of CSR concept.

Activities in each life cycle phase were crisscrossed with the requirements of each responsibility category as the framework is presented in stages. Housing project challenges are subjected to CSR with the intention of defining the challenges and possible implications, evaluating CSR alternative solutions, selecting the best CSR alternative solutions to advance the project as well as implementing the selected CSR alternative solutions. The framework was designed such that the challenges in the life cycle phases will be subjected to the responsibility categories within which the CSR responsible practices and CSR strategies act as a panacea in preventing and mitigating these challenges. The responsibility categories are arranged horizontally from left to right, while the housing project life cycle phases are arranged vertically from top to bottom. ‘YES’ indicates forward movement in the event of a hitch-free process, while ‘NO’ indicates otherwise and a reversal for the purpose of correction. The framework

workability is such that, as project stakeholders navigate southwards through each life cycle phase, these stakeholders must implement CSR strategies and responsible practices which flow either westwards or eastwards, depending on project peculiarities as indicated in Figure 1.

3. Framework Application Along Housing Project Life Cycle Phases

Frameworks are adopted in various fields of service delivery depending on the peculiarities in the anticipated adoption and projected outcome (Louder et at, 2021). Addressing project challenges requires that discursions and explanations must be explicitly made on how to apply CSR along the five life cycle phases which are initiation, planning, design, execution and commissioning. Furthermore, it is imperative to mention the nature of challenges which can either be prevented or mitigated during the course of housing projects.

3.1 Initiation Phase

This is the conceptualization stage within which responsible decisions need to be taken early enough to ensure the survival of the housing project (Lefat, 2012). There is need to set up an initiation phase team which should consist of various professionals in the built industry, with the purpose of taking informed decisions which can prevent and mitigate challenges. These decisions should be along the path of: defining and justifying the need for the project which should be based on the anticipations from the project; specifying, quantifying and agreeing on desired outcomes and benefits which is based on available resources and economic projections.

Determining a quality project manager to advance the project who can take decisions based on professionalism, expertise and experience is vital, after which a project board can be set up. An economic projection team of two or more people can also be set up for the purpose of determining financial projections in order to determine the possibility of inflation, setting up a temporary project office where supervision and coordination should emanate from based on accessibility and habitability considering the project host communities; ensuring that the decisions which are taken reflect the intentions of clients such that adjustments can be made in the event that clients do exist, and reporting back to shareholders on decisions taken to ensure approvals.

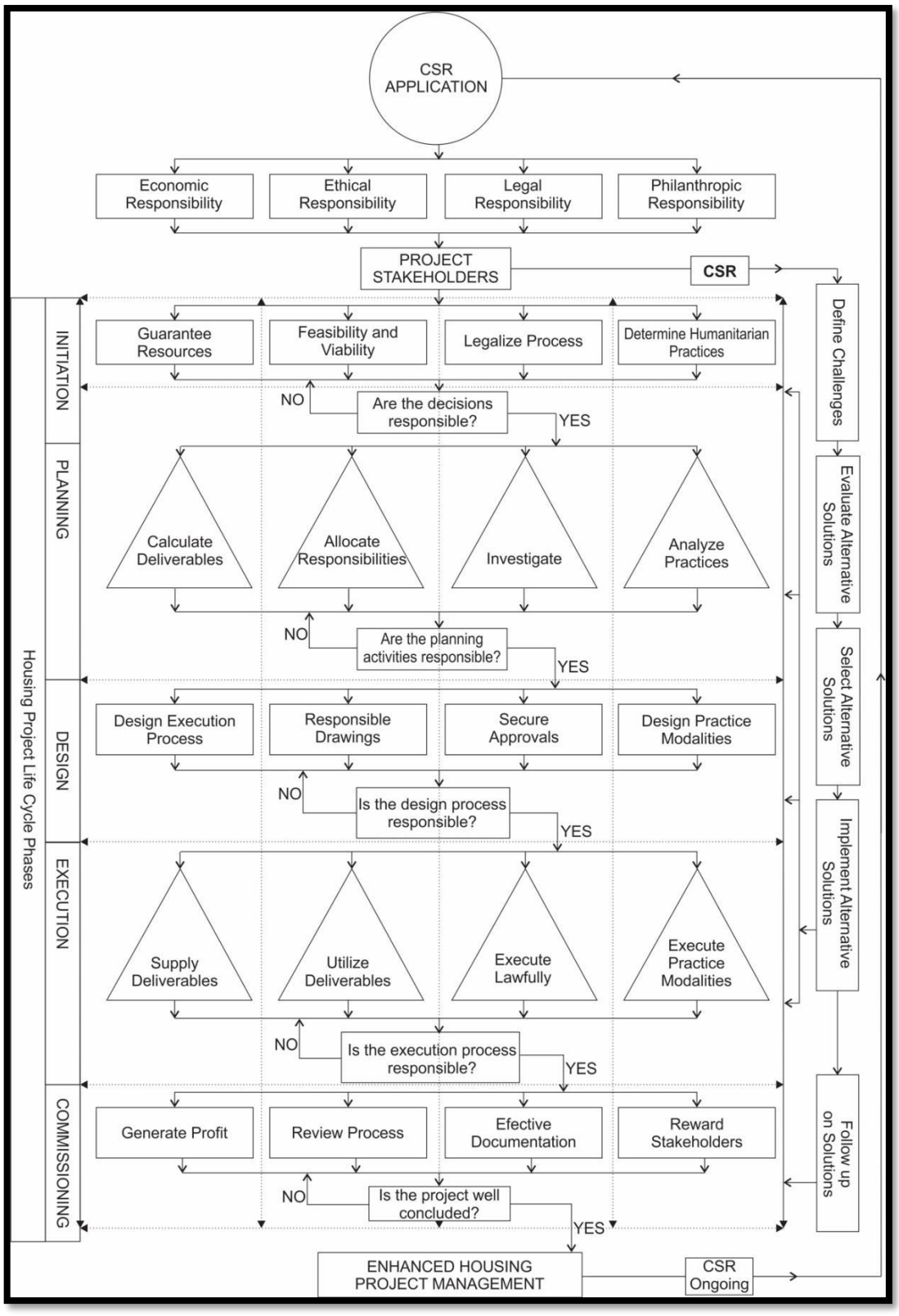

Figure 1: Framework for the Effective Application of CSR in a Housing Project Life Cycle

Along the responsibility categories in the initiation phase, the economic responsibility can guarantee the availability of resources needed to advance the project; some of which are labour, tools, equipment, materials and supplies. The quality of these resources should be put into perspective by considering past performances when used, investigations on satisfaction levels of resources by other construction participants, the availability of resources such that there is no cut in supply during the execution and the cost of resources so as to align with project budget. The economic responsibility guarantees feasibility and viability appraisals so as to determine the possibility of successfully embarking on the project, as well as the worthwhileness of the housing project. This will inform whether resources should be invested and to what extent. The legal responsibility will ensure that the entire conceptual decisions are taken within the confines of laws which affect the housing project. The services of qualified legal personnel can be engaged to advise on the right pathway towards taking lawful decisions as well as the implications of faltering decisions, if any. The philanthropic responsibility ensures that decisions are taken on the humanitarian practices that should be embarked upon for stakeholders, provided there is availability of funds for project philanthropy. Host communities are often considered to determine practices that may be most suitable and can help to alleviate impending issues. This ensures support at various levels from primary and secondary stakeholders.

Application of CSR in the initiation phase will have a significant effect on challenges. For example, the challenges of faulty forecasting can be mitigated through undertaking a proper feasibility study; poor project fund allocation can be mitigated through planning, maintaining and controlling project resources; poor project budgeting can be prevented through preparation of peer reviewed scrutinized budgets prior to projects; lack of feasibility and viability studies can be prevented or mitigated by undertaking a feasibility and viability appraisal for damage control while failure to define a project can be prevented by early and routine meetings and decision taking. Furthermore, the challenge of inadequate amenities can be prevented by generating profit from initial projects to ensure adequate capital. Poor infrastructure can be mitigated through planning, maintaining and controlling project resources; weak project initiatives can be prevented via ensuring an environmentally friendly housing project; poor housing project sensitization can be addressed through well-defined CSR objectives and inability to pay contractors can also be mitigated through planning maintaining and controlling project resources. Low government assistance in projects can be mitigated through setting up an effective project board to liaise with government officials at different levels with follow-ups.

Lack of commitment from firm can be addressed by the integration of proper CSR values and vision in housing projects while challenges as a result of the death of a housing project financier and poor resource mobilization can be mitigated by effectively planning, maintaining and controlling available project resources to get the project to an advanced level. Poor attitude of stakeholders

can be mitigated by appointing a good project manager with the ability to engage; weak project policies and unrealistic expectation from partners can be avoided by setting up an effective project board to create quality policies, while erratic contract negotiations can be prevented through an enhanced corrupt-free and well-monitored procurement process.

3.2 Planning Phase

To achieve a challenge free project process, there is a need to adequately plan responsibly. Planning with CSR involves responsibly and intellectually deciding early enough, what needs to be performed in housing projects, when it needs to be performed, how it needs to be performed and the people assigned with the responsibility of performing all through the life cycle. A planning team can be set up depending on availability of funds for the purpose to take important decisions that will affect the housing project all through the life cycle phases (Salaudeen, 2014). Planning in housing projects should be done such that the most responsible decisions are taken by way of: deciding how to manage relationships; effective ways to manage the delivery process; determination of the required labour force; material testing arrangements; determination of resource requirements and possibility of making them available. Project, resource, risk, procurement, communications and financial plans need to be prepared considering availability of time as well as overall target of clients and shareholders.

Activities in the responsibility categories may run concurrently in the planning phase. The economic responsibility in the planning phase ensures that all deliverables are efficiently calculated. Site position is determined from various options in consideration of project fit and purpose. Various professional teams are selected considering work experience and expertise. Buildings positions are conceptualized to ensure maximization in number and accessibility. The nature and quality of materials to be used is considered and agreed upon, but subject to changes based on eventualities. Adequacy of machinery and equipment need to be properly determined; and in some cases, new ones should be purchased or hired if and when needed. New wage structures may be determined for new housing projects depending on housing project location. For ethical responsibility, job responsibilities should be allotted across professionals in the built industry. This can be more effective by determining strengths and weaknesses of employees and creating teams that compliment these strengths and weaknesses such that project execution is not unnecessarily interfered with. Engagements should be done where employees are fully briefed, and in some cases re-orientated as different projects often come with a myriad of expectations. Legal responsibility will ensure that integral investigations are carried out by internal or external legal teams for example, investigations bordering on: actual land ownership prior to purchase; documentations investigation; caveat emptor; topography issues; differences between size in site plan and size on ground;

issues of ground rent arrears; number of unexpired years in the case of leasehold interests and proper deed transfer agreements. Integrity tests should be carried out on targeted raw materials intended to be purchased and used. From the already determined philanthropic practices to be embarked upon as decided in the initiation phase, analysis is made to determine workability, ease in delivering; impact of delivering on firms finances and prospects as a result of executing.

The various challenges in the planning phase require requisite CSR actions to prevent or mitigate them. The challenge of delayed site delivery can be prevented by early planning on how to deliver on the requirements. Poor project funding was mitigated by ensuring proper commitment from key stakeholders in housing projects. Faulty documentation can be addressed by responsibly creating a proper project plan to ensure that employees saddled with those requirements perform them effectively and this can be backed up with effective monitoring. The challenges of task collision and poor organizational framework can be mitigated by appointing a credible manager to advance projects, while poor scheduling, poor planning, poor site allocation and poor resource distribution can be mitigated by adequately planning, maintaining and controlling project resources. Diversion of project funds can be prevented through fragmented and precise disbursement of funds to include monitoring and control as well as routine materials inspection and periodic auditing.

Challenges concerning land acquisition and delay in certificate of occupancy issuance can be mitigated by enhancing land acquisition and compensation processes where inspections, interviews, determining valuations, payment systems and stakeholder engagements are carried out. Delay in approval of plans, poor project infrastructure and layout and poor loan arrangement can be prevented by providing resources needed to enable the required project outcome, early enough. To avoid the challenge of poor choice of contractors, resource requirements need to be determined wherein the nature, skill, expertise and competent levels are adequately captured. Furthermore, the use of inferior building materials and poor devolution of responsibilities can be mitigated by appointing a credible project manager. Inability to create an enabling environment can be mitigated by integrating proper CSR values and vision where relevant factors needed are worked on, while inflated contract quotes can be prevented through thorough investigations in an enhanced land acquisition and compensation process.

3.3 Design Phase

The need for CSR in housing project design cannot be overemphasized. A design team which should comprise of a consortium of design-related professionals can determine the pathway for responsible and sustainable designs by taking responsible, logical and achievable decisions (Landon &Alken, 2012). The nature of design decisions has far reaching implications on the project process and outcome. The design of the framework was presupposed such that responsible

decisions are taken in the process such as: sketching designs to match clients' requirements after several engagements, and consideration on its financial and time achievability, to include its worthwhileness. Some pertinent questions that should arise are: Who are the clients of the housing project? What standard is expected of the project? Can the available funds attain this standard? How soon can approvals be attained for the project? What is the duration of the project? Is the project achievable within the available finances and timeframe? Who are the target occupants of the houses? The final design is then developed based on the deliberations in order not to sway from the agreement. The drawings are usually distinctive in the areas of structural, mechanical, plumbing and electrical. It is advisable to also include clearly detailed drawings for the purpose of security, wiring, intercom as well as wiring for cable television, subject to housing project need, as is now a new normal.

In the responsibility categories, the economic responsibility will ensure that the execution process is well designed. A special-purpose enhanced Gantt chart can be prepared to capture the basic requirements and should be organized such that there are coordinated duties even in the case of overlapping duties. In the event that the housing project has a timeframe, the design can include dates attached to particular duties, with the possibility of adjustments based on unforeseen circumstances. Daily timelines can also be inculcated in the design, with provision for break periods. It can also include special days for supplies based on time of use and requests. Furthermore, the design of the execution will capture provisions for safe practices within site based on arrangement of machineries, proper scaffolding, measures to ensure that materials are safely carried to upper floors despite the height and effective first aid practices. The design will also determine storage positions which need to be located closer to security units and very accessible to where they can be lifted with convenience.

The ethical responsibility category ensures that drawings are designed responsibly capturing cost effectiveness; achievability; comfort of accommodation; convenience of design; design based on available and budgeted capital and avoidance of cumbersome and expensive shapes. Design inspections must be carried out to determine land size, land shape, topography, slope and accessibility. A geophysical survey is also mandatory to ascertain the availability of water. These factors will help in the final design as the design team tries to navigate through encumbrances. A design draft on completion, should be deliberated on by way of scrutiny; and accepted across board before a final draft is prepared. The legal responsibility ensures that all approvals for the drawings are secured from the right authorities. This can be aided by regular follow-up visits to ensure a hastened process, considering the bureaucratic bottlenecks in the Nigerian clime. It is advisable to part with some stipends for purpose of motivation. For the philanthropic responsibility, the most convenient and impactful ways through which the responsible practices will be implemented, will be designed taking into cognizance the flow of capital, duration of distribution

and number of times for distribution in cases where goods are to be contributed. For infrastructure related contributions, considerations should be made as regards whether the proposed service is to be executed before, during or after the housing project.

CSR practices are key to preventing and mitigating challenges in the design phase of housing projects. Delay in design approval can be prevented by creating approval teams of competent professionals to carry out regular visitations as follow-up towards ensuring that approvals are secured early enough. Faulty designs can be mitigated by peer-reviewing and correcting within the shortest possible time prior to commencement. Uneconomic design can be prevented by carrying out requisite changes and advising on the changes made for clients or board approval as well as implementation. The challenge of late design delivery can be mitigated by constant follow-up and interfacing with the design team, while poor design interpretation and delay in correcting design changes can be mitigated by effective monitoring and demanding. Furthermore, design change during housing projects can be mitigated by promptly engaging with the clients and project owners to explain the impact of changes on the available resource, towards agreeing if the changes are indeed needed. In addition, unachievable designs can be mitigated by effectively interfacing and advising interested parties to make the requisite changes early enough while explaining the repercussions of not doing so, as well as providing professional suggestions. Improper design interpretation can be mitigated by peer reviews and meetings with qualified personnel for the purpose of proper interpretation.

3.4 Execution Phase

The execution phase of a housing project is likely also prone to challenges which need to be addressed (Falco, 2018). The execution phase in the housing project life cycle was surmised by respondents as being the phase that is most ridden with challenges. This can be attributed to the nature of its activities, and this was considered in the framework development. Through CSR, execution activities can be boosted by way of responsible decisions in preventing and mitigating challenges during housing projects through: timely mobilizing resources needed to enable the required project outcome; efficiently utilizing project resources in an accountable manner; prioritizing safety; taking adequate steps to manage risks as they occur; ensuring adequate communication between project stakeholders and reporting progress to shareholders and clients. Ongoing viability can also be determined during the course of executing projects in the light of any changes or alterations to initial requirements. Deliverables must also be fit for the purpose as a means for benefits to be realized.

The responsibility categories have pertinent obligations which need to be met in the execution phase. The economic responsibility ensures that all deliverables required to advance this phase are adequately financed and supplied. The required labour will adequately be provided based on man-

capability and expertise which can be streamlined by past job experiences, informal investigations and referrals. The best quality tools can be supplied in addition to already existing ones depending on project demands. Quality materials can be arranged for, to be firstly supplied at the inception and then intermittently wherein contracts and memorandum of understandings can be signed and properly saved to cushion the effects of supply disappointments.

A team can be set up to monitor and inspect supply quality. Furthermore, construction equipment such as excavators, compactors, dump trucks, cranes, asphalt paves, surveying equipment and welding machines should be serviced early enough and in cases of damage, replacement can be done depending on budgeted funds. Vehicles need to properly serviced to avoid breakdown during the course of project execution. The ethical responsibility requires that deliverables are properly managed and utilized in the most responsible manner. Human incentives need to be provided to enhance motivation by way of periodically reviewing salaries, payment of wages as at when due, effective payment for supplies, loan packages and so on. Health and safety benefits are mandatory and should be subjected to standards testing if possible.

Project finances must be channeled to the purpose for which they were released, as internal audits can be done periodically for checks and balances. Monies should be released adequately to the right people and all goods purchased must be receipted for. Equipment should be used by trained and qualified personnel and should be properly utilized based on run-hours as specified by manufacturers. They should be inspected routinely and serviced to ensure best performance. Time should also be properly utilized by ensuring that workers are properly monitored. The use of phones and any other distracting gadgets should be prohibited from project sites as they affect performance levels with time overruns as a consequence.

The legal responsibility requires that projects should be lawfully executed by ensuring that proper documents are filed; taxes are adequately paid; outstanding wages and supply bills are settled in the shortest possible times and workers avoid all forms of malpractices capable of affecting the housing project by way of litigation. The philanthropic responsibility aspect requires the implementation, distribution and allocation of determined philanthropic practices to benefit stakeholders or project host communities. The exact number of items should be distributed without diversions, such that it portrays the construction firm in good light within society after which philanthropic reports are prepared for documentation purposes. Infrastructure can be developed prior to projects provided it does not affect the scheme and scope of project events.

CSR application can prevent and mitigate the challenges in the execution phase of housing projects. Challenges of poor project supervision and control; poor workmanship and misuse of resources can be mitigated by appointing a quality project manager who oversees and takes vital decisions in all aspects of the execution phase. For wastage of materials, efficiently controlling and utilizing

project resources will mitigate this challenge. Furthermore, the supply of poor quality materials can be prevented by adequate inspection and screening to determine quality as well as informal investigations which can also be done to determine performance of such materials when used in similar projects. Delay in supplies can be prevented by choosing credible suppliers and ensuring that proper documentation is done for supplies, which can further be backed up payments for supplies as at when due. To prevent site accidents, safety standards must be imbibed as properly serviced and running machines and equipment need to be used. Also, the nature of use must be defined, monitored and strictly adhered to. The effect of equipment breakdown can be mitigated by arranging for expert mechanics and spare parts suppliers in close proximity to arrest such situations. Religious and tribal conflicts in a housing project can be mitigated by proper orientation, adequate provision of internal and external security within project sites as well as proper stakeholder engagement during execution.

3.5 Commissioning Phase

This is the end or finish phase of any housing project. This phase starts at the end of the execution phase activities. This phase entails pre-commissioning and commissioning. Like other life cycle phases, commissioning phase is also susceptible to challenges as well as corrections. Activities of the commissioning phase of the life cycle are integral to housing projects (Landon &Alken, 2012), as well as effective housing supply. The CSR framework was designed to ensure that the outcome of the housing project is evaluated against the initially set project targets so as to determine success levels. Construction firms must also ensure that all resources are released in time and in the best possible conditions. Benefits should then be reviewed at the end of the project. Plans must be prepared for post project reviews in order to determine the degree for any improvements or modifications. In the event that all works have been done to specifications and quality levels, a handover process is activated.

The economic responsibility in the commissioning phase ensures that profit is realized through CSR application at the end of the project life cycle. Without profit making, the ability to responsibly execute future projects becomes impossible. Shareholders of construction firms are also satisfied by way of profitability and there would be a general sense of achievement across stakeholders. The ethical responsibility requires that the entire process is reviewed. A team should be set-up for the commissioning with the task of re-checking all structural components, installations and machineries where comprehensive notes and reports are delivered prior to hand over. It is anticipated that at this point, minor underlying corrections should be noticed. If there are any faulty aspects, they should be red-flagged and immediately corrected. All project resources should be released and final payments need to be made where necessary.

All mandatory livable installations such as electrical, mechanical, plumbing and carpentry will be ensured. Furthermore, in cases where the housing project is contracted to a construction firm, there is need to agree on a retention period within which the firm still takes control of maintenance of aspects of the project. Temporary security outfits are engaged to avoid vandalism of any kind prior to occupation. The legal responsibility requires effective documentation such that release notes and contracts are written and signed. Handover notes are prepared for end users so as to explain the workability of major components. Outstanding ground rents are paid and contractors and suppliers are fully settled provided there are no encumbrances. Titles should be prepared for each housing block. Initial payments may be received for the housing units and buyers' particulars should be properly documented. Withholding tax and value added tax must be paid on all incomes. The philanthropic responsibility requires that housing project stakeholders should be rewarded, even in the minutest way for the purpose of appreciation and motivation.

CSR can prevent and mitigate the challenges that exist in the commissioning phase of housing projects in a number of ways. For example, the challenge of poor progress evaluation can be prevented by creating a proper plan on how to manage the delivery process with emphasis on proper routine assessment of performances and standards. To prevent the challenge of failure to keep pace with the project phases, a properly prepared organizational Gantt chart can help in organizing the process provided it is strictly adhered to. Furthermore, the challenges of inconsistent project funding can be mitigated by adequately mobilizing additional funds and ensuring that these funds are channeled to the purpose for which they were obtained. Effectively monitoring economic indices and proper financial projections can guide future expectations, which informs on when additional funds should be sourced for. However, payback periods should be considered to avoid financial mishaps to the construction firm. Poor management and inability to set up closing inspection teams can be prevented by appointing focused and organized personnel to advance housing project activities all through the life cycle phases. In addition, the misuse of time during projects can be mitigated by effective time management and ensuring that it is adhered to, while poor communication can be mitigated by ensuring that proper communication is maintained amongst stakeholders in the project. The challenge of delays in project hand-over can be prevented by putting together a quality closing team early enough, and properly orientating on present and future expectations.

4. Framework Validation

As established, a framework is a set of processes, tasks and tools that is usually developed to provide guidance and structure for the execution of projects. Frameworks cannot be used in terms of certainty towards solving housing project challenges through CSR application until it is subjected to the process of

validation and evaluation. The process of framework validation and evaluation which is complimentary in nature, is required to prove the reliability and validity of a given framework. Validation is carried out during the process of framework development to ensure that the framework is correctly structured and the specifications are complete, clear, precise and free of mistakes. The process of validation always requires a validating approach. Frameworks come with their peculiar challenges as well as development purposes, therefore there is no formalized guide or procedure in selecting a validating approach. This leaves the validating approach strictly at the discretion of the researcher. To achieve the desired validity and reliability, Sargent (2005) recommended the combination of two or more approaches in the validation of frameworks.

In validating the proposed framework for application of CSR in a housing project life cycle, this study adopted two approaches namely the 'end user-framework developer' approach and the 'scoring system' approach. For the end user-framework developer approach, researchers and end users are involved in determining the validity of the framework to ensure it gains the required credibility levels. For the scoring system, scores are used to assess various aspects of the developed framework with respect to the intended purpose of the framework. Adopting both approaches affords users the opportunity to be heavily involved with the framework development team during the validation and evaluation of the framework wherein the users determine if the framework is satisfactory in the validation and evaluation stages (Sargent, 2014). A framework is considered valid if the overall scores in aspects of the frameworks assessed are above the minimum acceptable scores. For a 5 point Likert scale, the minimally acceptable score is 3.5 which validates and makes the framework credible. All aspects of the framework are required to score 3.5 or above to be considered valid and credible.

4.1 Results of Framework

This study targeted professionals in active practice as well as those into academics as the framework validators, as the research focused on CSR application in preventing and mitigating challenges in housing project life cycle phases. A total of 23 of these practicing professionals and academia were engaged as validators. In line with the user-framework developer and the scoring system approaches, a validation instrument was prepared consisting of open-ended and closed-ended questions. The validation instrument was sent to the identified validating respondents where qualitative and quantitative data was generated. The respondents were drawn from the participants in the main research and the academia who comprised of the framework development team. The respondents had the responsibility of rating aspects of the framework and freely commenting on other aspects.

4.2 Quantitative Results

The quantitative section of the validation instrument was on certain aspects of the framework which include: clarity of framework; logical structure; comprehensiveness; effect of framework on housing project challenges; practical relevance of the concept of CSR and overall applicability of the framework to the success of housing projects. Clarity measures the intelligibility of the framework to establish whether it is clear enough to be easily understood by users; logical structure seeks to assess the consistency of the framework with the real system so as to verify if the framework is logically connected or coherent with real life situations; comprehensiveness measures the degree of completeness of the framework which ascertains whether the framework has the necessary elements or not; effect of framework was to determine the consequence as a panacea to challenges; practical relevance sought to determine the frameworks appropriateness and for applicability, its relevance in housing projects.

Table 1 shows the result of investigation on key aspects of the framework. The result indicates a generally positive response by all validators on all key aspects of the framework as none of the aspects received a poor score. The mean scores of all 6 items ranged from 3.70 to 4.80, which were all above the acceptable score of 3.5 as earlier indicated for a 5-point Likert scale. The highest mean score recorded was 4.80, for the question on the logical structure of framework while the lowest mean score of 3.70 was recorded for the practical relevance of the concept of CSR in the framework. Despite being the lowest score, it was more than the acceptable minimum score which can be attributed to the fact that the framework has not yet been tested towards preventing and mitigating challenges. In light of all the mean scores, it can be concluded that the framework is clear enough for user understanding and consistent with real system of practice. Furthermore, it can be said to be complete and ready for application in line with its development purpose.

Table 1
Mean Scores of Key Aspects of the Framework

Key Aspects of the Framework	Mean Score	Standard Deviation
Clarity of the Entire Framework Processes	4.78	1.24
Logical Structure of the Framework	4.80	1.21
Comprehensiveness of the Framework	3.71	1.04
Applicability of the Framework in Housing Projects	4.77	1.38
Effect of Framework on Housing Project Challenges	3.81	1.06

Practical Relevance of CSR Concept in the Framework	3.70	1.20

Source: Field Work (2022).

The need also arose to determine the percentage score of each of the key aspects of the framework. This was inferred through the percentage score ratings of the six dimensions of the framework provided by the respondents as indicated in Table 2. The percentage scores showed that none of the items of validation was scored poor. Furthermore, each item received at least one excellent score. Going through the percentage scores, for clarity of framework, 13% of respondents rated the framework satisfactory, 64% rated it good while 23% rated it excellent. Regarding logicality of framework, 7% of respondents rated the framework as satisfactory, 69% rated it good and 24% rated it excellent. Comprehensiveness of framework had percentage scores of 8% for fair, 26% for satisfactory, 45% for good and 21% for excellent. Regarding the applicability of the framework in housing projects, 17% of respondents rated satisfactory, 58% rated good while 25% rated excellent. For effect of framework on housing project challenges, 27% of the respondents rated the framework satisfactory, 58% good and 15% excellent; and for practical relevance of the concept of CSR in the framework, 40% of respondents rated it satisfactory, 55% rated it good and 5% rated it excellent. Based on results of the validation, it can be concluded that the framework can be applied in addressing challenges in the life cycle phases of housing projects.

Table 2
Percentage Scores of Key Aspects of the Framework

Key aspects of the framework	1 Poor	2 Fair	3 Satisfactory	4 Good	5 Excellent
Clarity of the Framework	-	-	13%	64%	23%
Logicality of the Framework	-	-	07%	69%	24%
Comprehensiveness of the Framework	-	08%	26%	45%	21%
Applicability in Housing Projects	-	-	17%	58%	25%
	-	-	27%	58%	15%

Effect of Framework on Housing Project Challenges					
Practical Relevance of CSR concept in the Framework	-	-	40%	55%	05%

Source: Field Work (2022).

4.3 Qualitative Results

The crux of the qualitative results was on the strengths (advantages), weaknesses and general comments towards improving the framework. Regarding the potential of the framework, the validators were required to provide information on the potential of the proposed framework for the application of CSR in the management of housing project life cycle. From the validators submissions, a common theme that kept occurring and reoccurring was the quality in the logical structure of the framework and its potential to adequately address the challenges in each life cycle phase if strictly adhered to, thereby increasing the prospects of an enhanced housing project management as well as housing supply in Nigeria. Another potential of the framework identified by the validators was the ability of the framework to efficiently determine suitable humanitarian practices which construction firms can engage in to positively impact on both primary and secondary stakeholders' motivations, thereby improving the process of housing development.

From the results on the content analysis presented above, it can be seen that the main potential of the proposed framework for the application of CSR in the management of housing project life cycle borders on logicality and clarity. In summary, the framework presents a logical step by step process towards addressing housing project challenges through CSR application. Furthermore, the framework has the clear potential to efficiently guide the housing development process across the life cycle phases, thereby enhancing success in housing provision in Nigeria.

Information was also obtained from the validators on identification of the weaknesses of the proposed framework in relation to the purpose for which it was developed which received divergent opinions from the validators. Some indicated that the framework was faultless while others pointed out weaknesses relating to complexity and structure of the framework. One of the validators indicated that: ''The framework has no defined weakness and I am strongly of the opinion that it is very thorough and rigorous''. A respondent who was a top staff at FCDA noted that: ''The framework is comprehensive enough to address challenges existing in housing project with Corporate Social Responsibility. It can also help to improve activities in the process of housing projects as a whole.

However, on the weaknesses of the framework, one of the validators suggested: ''There is a need to ensure that the challenges are analyzed and solutions are implemented in each phase, rather than a general analysis and implementation of

solutions across phases as seen on the right side of the framework''. Another validator opined a weakness of the framework by indicating: ''The relative complexity of the framework may be difficult to for some inexperienced stakeholders to understand. In addition, its inability to specify the various parties that are responsible for implementing CSR strategies and responsible practices in housing projects''.

The identified weaknesses centered on the frameworks assumed complexity and its structure. The researcher is strongly of the opinion that the supposed complexity issues would be resolved when the intended users are adequately familiar with the framework in sessions such as seminars and conferences. Furthermore, when the framework has been adequately test-run in housing projects in Abuja and across various climes, the feedback information can help to simplify some of the issues raised regarding this complexity. Moreover, provision has been made in the framework which clearly indicates that all project stakeholders are all responsible for CSR implementation in their various capacities across the project life cycle, as they all have important roles to play. Furthermore, analyzing challenges and implementing CSR solutions in each phase is likely to complicate CSR implementation as there would be numerous over-lapping duties and decision making which will result to time, labour and cost implications on the entire project process.

In further response to above comments and suggestions, it should be noted that the occurrence of challenges in the management of housing projects is continuous and frequentative in nature, therefore the end of one phase signals the beginning of another. Such activities require a flow-process; therefore, the implementation of CSR strategies and responsible practices is agreed upon anticipation of challenges as well as implementation in the life cycle phases as the challenges occur. Housing project stakeholders all have various roles to play in CSR application which necessitates the need to define roles and responsibilities when CSR teams interface to take decisions on the requisite application process. Lastly, the framework which is iterative in nature with various options for making decisions provides project managers and practitioners the opportunity to determine the best routes for effective implementation of the framework in preventing and mitigating challenges. The validation results indicate that the framework is valid and credible, therefore it can be applied for the purpose which it was developed.

5. The Findings, Conclusion and Recommendations

A brief and specific finding, conclusion and recommendation is presented in order to elucidate discovery, understand why the framework should matter and concisely guide and suggest ways through which the framework can be applied and monitored in the future.

5.1. Findings

The designed framework for application of CSR in a housing project life cycle indicated high ratings from various expectations of the framework such as its clarity, logical structure, comprehensiveness, applicability, effect of the framework on housing project challenges and practical relevance of framework. Furthermore, the main strength of the framework was perceived to be its ability to address housing project challenges while the weakness was centered on the possibility of being complex to understand by certain housing project stakeholders.

5.2 Conclusion

Despite the potentials and highly beneficial multi-faced practices associated with housing project delivery, there still was no existing CSR framework to address the ever-present challenges in a housing project life cycle in Nigeria, prior to this study. A challenge therefore arose as to the level of adoption of the framework by project participants and their capacity to improve on some of the constituents in the long run.

5.3 Recommendations

It is imperative for construction firms to review the performance of the framework for the application of CSR in the housing project life cycle whilst in use, on a project specific basis for the purpose of determining short comings. Based on shortcomings, it is important to afterwards make requisite adjustments to improve the framework when and where necessary. This is advisable considering that new challenges will always arise based on peculiarities of varying project types, policies and project locations.

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