Ajibola (2009) was of the opinion that we must imbibe maintenance culture in order to enjoy the best value for our money, for us to enjoy the best of life, for how well we use and enjoy our buildings, household equipment, furniture etc, dependent on how well we have imbibed the culture of maintenance. The purpose of carrying out maintenance work on buildings according to Adejimi (2005), is to preserve the building in its initial state as far as practicable in order to effectively serveits desired purpose.

Al-Zabaidi (1997) identified some of the main purposes of maintaining building as follows:
i. To preserve a building in its initial state as long as practicable so that it serve effectively the purpose for which it is built.
ii. To maintain an acceptable quality standard in term of structural stability to meet the current taste and demand.
iii. To attract higher rental value whenever such buildings are to be placed on commercial use.
iv. To assist in the minimization of production cost
v. To keep down time and maintenance costs themselves to a minimum.
vi. To maintain and retain aesthetic value
vii. To improve the general condition of such buildings.
viii. It must also be stressed that in as much as it is hardly feasible to produce building that are maintenance free, the amount of necessary building maintenance work could still be kept to a minimum through improved method of design, specification and construction as well as feedback of maintenance data to the designer (Akingbohungbe, 2002).

The Need for Maintenance in Building

Previous studies revealed the effects of numerous factors affecting building for necessary maintenance. Assaf (1996) opined that design and construction faults that affect maintenance of buildings are defects in structural design, defects in architectural design, defects due to consultants firm's administration and staff, defects due to construction drawings, defects due to construction inspections, defects due to construction, defects due to contractual administration, defects of construction materials, defects due to construction equipment, defects arising from specifications and design defects in maintenance practicability and adequacy.

Adejimi (2005) asserted that to a large extent, building maintenance problems can be attributed to problems originating from poor design. Adejimi (2005) in his study identified twelve relevant factors affecting the maintenance strength of buildings as design resolution, structural strength, specified material strength, maintenance manual, safety measures, skill maintenance personnel, maintenance plants, environmental factors, usage factors, quality control factors and post construction prevention strength. Kiong and Akasah (2012) analyzed the maintenance factors for IBS precast structural system in Malaysia in order to produce a better quality of the IBS precast building. They identify design aspect as an important factor of the building quality.

Zulkarnain et al.(2011) reviewed the critical success factor in building maintenance management practice for University sector under four perspectives; customer (customer satisfaction, service quality, customer complaint, reaction to customer needs), internal processes (service excellence, technology capability, customer employee, competence, process efficiency, e.t.c.), financial perspective (management expectations, financial growth, cost reduction, productivity improvement, e.t.c.) and learning and growth perspective (technology leadership, continuous service improvement, upgrading staff competence, e.t.c.). They concluded that critical success factors can help in providing a successful competitive performance for the university sector in the area of maintenance management. Olagunju (2012) identified factors that influence the level of maintenance of building standard. In the study, eight factors were identified to be significant to physical condition of building in Niger State, Nigeria. The variables are structural components condition, roof components, toilet facilities, discharge of waste water component, exterior wall condition, condition of walkway within the building premises, electrical wire and switches conditions, interior walls surface condition.

The Study Area

The Study was carried out in three senatorial areas of Ondo State. That is The Southern, The Central and The Northern Senatorial Areas of Ondo State.Ondo State was carved out of the old Western State as one of the seven states created on February 3, 1976 (Ondo State, 2010 and myondostate.com, online, 2015). The State is dominated by Yorubas who speak various dialects in the Yoruba language. Education is accorded higher priority by the state government with the state reputed as the education factory of Nigeria as a result of emphasis in the sector over the years with more than 2,000 Public buildings, ranging from primary, secondary, technical schools and tertiary institutions; some, which are owned by the federal government, some by the state government and the rest by private corporations/individuals. Other public institutions arehospitals, event centers, markets buildings, government offices, post offices, libraries, etc.

Research aim and objectives

The aim of the study is to determineyardsticks for theeffective maintenance of public buildings in Ondo State with a view to proffering solutionsfor effective maintenance of public buildings. The objectives are:

(1) To assess thenoticeable defects associated with public buildings in Ondo State.
(2) To assess major causes of defects associated with public buildings in Ondo State.
(3) To determine yardsticks for the effective maintenance of public buildings in Ondo State

Methodology

In an attempt to achieve these objectives, data were obtained from both primary and secondary sources. Primary data were collected through the administration of a well-structured questionnaires administered to organization heads, technical staff of public buildings,users of the public buildings andpofessionals in the building industry as well as oral interview. Seventy eight (78) questionnaires were returned out of the

one hundred (100) administered. Secondary data comprised information which was derived from textbook, paper presentation, journal and information from the internet which were relevant to the study. The method adopted for this are the major tools used to validate the project research question. The study areas are the three senatorial areas of Ondo State. The research adopted both quantitative and qualitative frame work with a case study design approach adopted to identify the concept yardsticks for effective maintenancewith particular reference to some selected public buildingsin Ondo State. They are: Post Offices; Libraries and Schools.

The Likert scale involving rating on interval scale of 5 and 1 developed for application in social sciences and management researches for quantification of qualitative variables was used. "Extremely Important" (EI) were scored 5, "Very Important" (VI) were scored 4, "Somewhat Important" (SI) were scored 3, "Not very Important" (NVI) were scored 2 and "Not Important" (NI) were scored 1. Bakhary (2005), Olanrewaju and Anifowose (2015) gave an equation that could be useful for determining the:

Relative Significance Index (RSI) in prevalence data as:

$$\mathbf{RSI} = \frac{\sum \mu}{AN}$$

Where μ is the weighting given to each factor by respondents;

A is the highest weight (i.e. 5 in this case);

N is the total number of respondents

But for this type of research work where a 5-point scale was used, the RSI shall be calculated via the equation:

$$\mathbf{RSI} = \frac{5a + 4b + 3c + 2d + 1e}{jN} \qquad (0 < \text{index} < 1)$$

And

$$\mathbf{TWV} = \sum (5a + 4b + 3c + 2d + 1e)$$

Where: a = number of respondents "extremely important and perfectly known",

b = number of respondents "very important and partially known"

c = number of respondents "somewhat important and known"

d = number of respondents "not very important and partially unknown"

e = number of respondents "not important and perfectly unknown"

N = sample size, i.e. total number of respondents = 78

j = number of response categories = 5

2. RESULT AND DISCUSSIOON.

The data were presented using tables for clarification and better interpretation. The analysis tools included both descriptive and inferential statistics.

Table 1: Type of Respondents in order of its frequency

S/N	Respondents	Frequency	%
1	Users of the Public Buildings	30	38.46
2	Professionals in the Building industry	23	29.49
3	Technical Staff of Public Buildings	15	19.23
4	Maintenance organization Head	10	12.82
	Total	**78**	**100.00**

Table 2: Types ofPublic Building Surveyed in the three Senatorial Areas of Ondo State.

S/N	Respondents	Frequency	%
1	Post Offices	19	43.18
2	Libraries	15	34.09
3	Schools (Post Secondary Institutions)	10	22.73
	Total	**44**	**100.00**

Table 3: Number of the type of Public Buildings Surveyed from the three Senatorial Areas of Ondo State. (A= Number of building; B= Percentage; C= Rank).

N		POST OFFICES			LIBRARIES			SCHOOLS		
		A	B	C	A	B	C	A	B	C
1	SOUTHERN SENATORIAL AREA	5	26.32	3rd	4	26.67	3rd	2	20.00	3rd
2	CENTRAL SENATORIAL AREA	7	36.84	1st	6	40.00	1st	4	40.00	1st
3	NORTHERN SENATORIAL AREA	7	36.84	1st	5	33.33	2nd	4	40.00	1st
	Total	**19**	**100.00**		**15**	**100.00**		**10**	**100.00**	

Table 1 shows the type of respondents in the order of its frequency. It shows that the highest number of respondents, 38 (38.46%),are users/occupants of the public buildings. The second with 25 (29.49%) are professionals in the building industry, followed by Technical Staff of Public Buildings with 15 (19.23%), and the last with 10 (10.82) are the maintenance organization heads.

Table 2 shows the types of building surveyed in the three Senatorial Areas of Ondo State. 19 (43.18%) are respondents' on Post Offices, 15 (34.09%) are respondents' on Libraries and the remaining 10 (22.73%) are respondents' on School Buildings.

Table 3 shows the type of public buildings surveyed from the three senatorial areas of Ondo State.From the Southern Senatorial Area, 26.32% are Post Offices; 26.67% are libraries while 20.00% are school buildings. From the Central Senatorial Area, 36.84% are Post Offices; 40.00% are libraries while 40.00% are school buildings. And from the Northern Senatorial Area, 36.84% are Post Offices; 33.33% are libraries while 40.00% are school buildings.

Table 4: Respondents' Ranking of Noticeable Defects Associated with Public Buildings in in the Studied Areasof Ondo State

Noticeable Defects	1	2	3	4	5	Total	TWV	RSI	Rank
Staining/Peeling of paintwork at wall surface	0	0	5	30	43	78	350	0.897	1st
Peeling of plastered/rendered surfaces.	0	2	8	29	39	78	339	0.869	2nd
Leakages of waste/water pipes causing dampness.	2	2	16	26	32	78	318	0.815	3rd
Doors/Window defects – broken blades/glass, damaged/stiff louvre carrier, decay in door/window frames, etc.	4	8	11	25	30	78	292	0.749	4th
Crack in the wall	6	10	34	16	12	78	252	0.646	5th
Leaking Roof	13	14	15	15	21	78	220	0.564	6th
Sagging of carcassing members	18	20	20	10	10	78	208	0.533	7th
Blockages of sanitary/water pipes	22	27	10	9	10	78	192	0.492	8th
Weak foundation/foundation failure	29	28	10	5	6	78	165	0.423	9th

Table 5: Respondents' Ranking of Major Causes of Defects Associated with Public Buildings in the Studied Areasof Ondo State

Identified Major Causes	1	2	3	4	5	Total	TWV	RSI	Rank
Care free attitude of the users/occupants of the buildings.	7	16	12	18	25	78	278	0.713	1st
Use of inferior materials	8	20	10	22	18	78	256	0.656	2nd
Lack of regular check-up of the building for early detective for maintenance	10	22	15	16	15	78	235	0.603	3rd
Poor workmanship due to lack of control and proper monitoring	13	25	20	8	12	78	215	0.551	4th
Insufficient fund to quickly effect remedy when the need arises	15	25	15	12	10	78	208	0.533	5th
Slow responsiveness of the authority to request of remedy of any affected area	22	20	18	10	8	78	196	0.503	6th
Non compliance with specifications as contained in the designed documents and the bill of quantities	22	24	18	8	6	78	186	0.477	7th
Non consultation with/involvement of qualified professionals	23	23	20	6	6	78	183	0.469	8th

Table 6: Respondents' Ranking of Yardsticks for Effective Maintenance of PublicBuildings in Ondo State.

Identified Yardsticks	1	2	3	4	5	Total	TWV	RSI	Rank
Awareness for users/occupants towards strict compliance to enhance effective maintenance culture of the buildings	8	12	19	20	30	78	317	0.813	1st
Periodic/regular check-up of the building for early detective for maintenance work	9	10	16	18	25	78	274	0.703	2nd
Prompt response to provision of fund for maintenance work to effect remedy when the need arises	8	15	15	16	20	78	256	0.656	3rd
Involvement of professionals from inception to completion and at every stage of maintenance for the use of standard materials and for proper management of the building facilities	16	16	16	12	18	78	234	0.600	4th
Strict compliance to specifications as contained in the design documents, Bill of Quantities and construction documentations in the usage of approved materials	20	18	16	10	14	78	210	0.539	5th
Quick response of the department concerns to request of remedy when the need arises	25	24	10	8	10	78	185	0.474	6th
Optimization of design process to enhance good workmanship, labour, equipment and plant to									

Table 4 shows the relative significance index (RSI) of the type of the defects of building facilities in the study areas.The first ranked defect with RSI value of 0.897 is the Staining/Peeling of paintwork at wall surface, as was corroborated by the respondents. Peeling of plastered/rendered surfacesranked second

Table 4 shows the relative significance index (RSI) of the type of the defects of building facilities in the study areas.The first ranked defect with RSI value of 0.897 is the Staining/Peeling of paintwork at wall surface, as was corroborated by the respondents. Peeling of plastered/rendered surfacesranked second with RSI value of 0.869.Leakages of waste/water pipes causing dampness is ranked third with RSI value of 0.815. Doors/Window defects – broken louvre blades/glass, damaged/stiff louvre carrier, decays in door/window frames, etc. ranked forth with RSI value of 0.749. Crack in the wall ranked fifth with RSI value of 0.646. Leaking Roof ranked sixth with RSI value of 0.564. Sagging of carcassing membersranked seventh with RSI value of 0.533. Blockages of sanitary/water pipes ranked eighth with RSI value of 0.492.

While the least defect of weak foundation/foundation failure, ranked ninth with RSI of 0.423, as reflected in table 4.

Table 5 shows the causes of defects in facilities in the study area. Care free attitude of the users/occupants of the buildings is ranked the most major cause of defects with RSI value of 0.713. The second is Use of inferior materials with RSI value of 0.656. The third cause is Lack of regular check-up of the buildings for early detective for maintenancewith RSI value of 0.603 The forth cause is poor workmanship due to lack of control and proper monitoring with RSI value of 0.551. The fifth cause is insufficient fund to quickly effect remedy when the need ariseswith RSI value of 0.533. Thesixth cause is slow responsiveness of the authority to request of remedy of any affected areawith RSI value of 0.503. The seventh cause is non compliance with specifications as contained in the designed documents and the bill of quantitieswith RSI value of 0.477. While the last cause, is non consultation with/involvement of qualified professionals with RSI value of 0.469.

Table 6 shows the yardsticks that are recommended in order to give room for effective maintenance culture in tertiary institutions in Nigeria. The first recommended yardstick with RSI value of 0.813 is that there should be awareness for users/occupants towards strict compliance to enhance effective maintenance culture of the buildings. The second recommendation with RS value of 0.703 is that there should be periodic/regular check-up of the building for early detective for maintenance work. The third with RSI with the value of 0.656 is that there should be prompt response to provision of fund for maintenance work to effect remedy when the need arises. The forth recommended yardstick with RSI value of 0.600 is that there should involvement of professionals from inception to completion and at every stage of maintenance for the use of standard materials and for proper management of the building facilitiesThe fifth recommendation with RS value of 0.539 is that there should be strict compliance to specifications as contained in the design documents, bill of Quantities and construction documentations in the usage of approved materials. The sixthwith RSI with the value of 0.474 is that there should be quick response of the department concerned to requestsfor remedy when the need arises, and the last with RSI value of 0.431 is that there should be optimization of the design process to enhance good workmanship, labour, equipment and plant to reduce maintenance problems

CONCLUSION

Even though this research work may not have thoroughly discussed full causes of the whole scenario of

public buildings in respect of the defects and their major causes in the stated Senatorial Areas, it tries to give an overview on the common problems facing the building facilities. The paper therefore had identified that staining/Peeling of paintwork at wall surface, peeling of plastered/rendered surfaces, leakages of waste/water pipes causing dampness, doors/Window defects – broken louvre blades/glass, damaged/stiff louvre carrier, decays in door/window frames, etc, crack in the wall, leaking Roof, sagging of carcassing members, blockages of sanitary/water pipes and weak foundation/foundation failure were the noticeable defects associated with public buildings in the studied areas. The causes of the defects in facilities in the research are identified as slow responsiveness of the authority to request for remedy of any affected area; lack of regular check-up of the building for early detection for maintenance; improper management of the building facility; insufficient fund to quickly effect remedy when the need arises; use of inferior materials; bad workmanship due to poor control and supervision; non compliance with specifications as contained in the designed documents and the bill of quantities, while the last factor is non consultation with/involvement of qualified professionals in the building industry.

Recommendations

As a result of the issues discussedabove, the followings are, therefore, recommendedas solutions*towards developing a model for the maintenance of public buildings in Nigeria,*:

(i). There should be awareness for users/occupants on strict compliance towards enhancement of effective maintenance culture of public buildings.

(ii). There should be periodic/regular check-up of the building for early detection for maintenance work.

(iii). There should be prompt response to the provision of fund for maintenance work to effect remedy when the need arises.

(iv). There shouldinvolvement of professionals from inception to completion and at every stage of maintenance for the use of standard materials and for proper management of the building facilities.

(v). The strict compliance with specifications as contained in the design documents, bill of Quantities and construction documentations in the usage of approved materials.

(vi). There should be quick response from the department concerns to request of remedy when the need arises.

(vii). There should be optimization of design process to enhance good workmanship, labour, equipment and plant to reduce maintenance problems.

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RUGIPO RESEARCH AND TECHNICAL JOURNAL

COMPARATIVE STUDY OF VARIOUS WALL FINISHES IN BUILDINGS IN ONDO STATE, NIGERIA.

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Abstract:

Wall finishes is the term to describe an application over a wall surface to provide a suitable surface. Wall finishes are smelt, touched and seen by building occupiers even colour and design affects the user psychology and the atmosphere of our building. Building users/owners seem not to recognize the function of various wall finishes in building and factors to be considered in selecting them suitable for the type and purpose of proposed buildings. Therefore, defects such as deterioration, dampness and stain may occur when comparison of wall finishes are not made before the selection of appropriate materials at the design stage with knowledge of the various factors that may hinder the performance or maintenance culture of proposed building of a particular location. The primary objective of this study is to identify the factors considered in the selection of various types of wall finishes and to compare the various wall finishes used in building in terms of defect, durability, maintainability and cost.This research work investigates and compares various wall finishes in building. Buildings in Ondo state, Nigeria were used as the target area to conduct the research works. The factors bearing on various wall finishes were analyzed to find out their individual and collective impact using suitable analytical tools. The findings revealed that paint with high percentage score was the most preferred wall finishes whereas wall paper was ranked the least by the respondent findings, Factors considered most in the selection of wall finishes include durability with the highest ranking percentage and the least was the cost. The study recommends that skilled worker should carry out operations, quality product should be used and all of wall finishes and materials should be considered before selection.

Keywords: Building, Construction, Design, Finishes, Wall

Introduction

Finishing can be considered as either exterior or interior finishing, using materials that may include cladding, doors, exterior trims, windows and paint. Exterior finishing may be extended to include external works like pedestrian way, lawns, fences and hedges while interior finishing will include ceilings, flooring, walls and stairs, it will also include casing, cabinets and fixtures that meet the owner's requirements and those of the building occupants.

Partitions and walls function is to divide a building into different areas of usage according to its occupancy and to hide electrical and mechanical equipment that may run through the cavity. Many types of finishes can be applied to the surface and that may be finished with another more decorative finish.

Finishing can be defined as the final layer which fixes and protects the surface of the building elements. Buildings were usually produced with traditional materials such as adobe, stone and wood at the period

whentraditional building techniques were in use. They were usually plastered or sometimes uncoated. The building section got thinner and new layers had to be added in order to provide comfort requirements after the transition to modern building techniques. The main purpose of finishing layers is to fix and protect the surface. It is also important to coat wall to protect the construction from abrasion, heat, moisture, effects of water and in order to create a suitable appearance (Giilru,2017).

Literature Review

Wall section can be analyzed in three layers; Interior coating, core and exterior coating. Some walls can be formed by one layer while some of them are formed by three layers. For instance, exposed concrete is formed by one layer but bricks walls are formed by three layers (Toydemir et al., 2000). A large variety of wall finishes can be used for renovations or any new construction. Functions of the finishes can change depending on their position on the wall. Exterior finishes play a significant role in forming the architectural character of the building. Also, it has to be resistant to atmospheric, chemical and mechanic effects and easy to clean. Interior finishes does not have direct contact with water and also does not encounter great temperature changes; therefore it does not have heat and water problems. In addition, interior finishing has to be compatible with the function of the space by appearance, color and texture (Toydemir et al, 2000).

The external building finishes therefore may not perform as expected and may fail to provide the desired functions for the intended time possible due to poor workmanship, exposure to adverse environmentalcondition, bacteria, inadequate quality of finish materials, erosion and wind. The coefficient of thermal expansion also affects finishes durability in tropical temperature, especially with high diurnal ranges (Evelyn et al., 2005).Ramanauskas and Stankevicius (2000) maintained that the durability of external finishes is determined by the following: Frost resistant, Moisture resistance and Corrosion resistance.

In essence, finishing materials have to be resistant to mechanical effects and the selection has to be done according to the material's strength properties. In order to protect surface properties and user's safety, finishing materials must have a sufficient compressive strength, impact resistance and walking safety (Toydemir et al., 2000; Binggeli, 2008).

Wall finishes may affect several measures of quality, including; - Relative Humidity of a room (Mortensem et al.,2005), - Indoor Air Quality (Holyson et al., 2000) and Transmission of harmful bacteria (Lanford et al., 2006). Thus, it is seen that moisture control using wall finishes is vital to preventing the growth of mildews and molds (Clausen, 2000). In order to keep wall finishes from transmitting harmful bacteria, they should be easy to clean and able to withstand repetitive wear and frequent germicidal decontamination and have the ability to repel moisture (Lankford et al., 2006).

Paint and wall coverings should be washable, durable and able to resist accidental impacts of trolleys and other objects. Wall finishes such as paint, sprayed plastic skins and plastics sheets with welded joints have been found to satisfy these requirements (O' Connell and Humphreys, 2000). Lam and Goodsall

(1994) studied 83 commercial building developments completed in Hong kong from 1982 to 1992. Tile cladding dominated in terms of the number of buildings. About (59 percent) were clad with tiles. However, in terms of the gross floor area involved, tile cladding ranked third (23 percent) among overcladding (45 percent), Curtain walling (29 percent) and precast concrete panel (2.9 percent). The author concluded that tile cladding is most commonly used for smaller and less expensive commercial developments.

Methodology

The primary objective of this study is to identify the factors considered in the selection of various types of wall finishes and to compare the various wall finishes used in building in terms of defect, durability, maintainability and cost. Eighty (80) questionnaires were administered targeting skilled and very experienced project professionals in the middle and top hierarchies of Ministry of Infrastructure, Works and Housing, Akureand tertiary institutions in Ondo State and marketers of wall finishing materials within the population limit. Seventy (70) questionnaires were returned and were subsequently analyzed. The questionnaire was structured in the Likert -5 point scale of response format. This has the advantage of flexibility for several choice responses.

The responses could be one of:

Never Used	Not Significant	Very Severe Defect	Very Poor
Rarely Used	Slightly Significant	Severe Defect	Poor
Sometimes Used	Moderately Significant	Fair Defect	Fair
Often Used	Highly Significant	Mild Defect	Good
Always Used.	Extremely Significant	No Defect	Excellent

Any of the above responses could apply to each of the statements made in the questionnaire.

Findings

Table 1.0: Various Wall Finishes in Building

Wall finishes	Types of wall finishes	NU 1	RU	SU	OU	AU	NO	% Score	Mean Score	Rank
Paint	Oil based paint	7	10	17	14	22	70	34.9	4.99	1st
	Water based paint	5	4	9	18	34	70	28.2	4.03	4th
Tile	Ceramic tile	4	0	10	20	36	70	29.4	4.20	3nd
	Clay tile	13	15	21	10	11	70	20.1	2,87	7th
	Quarry stone tile	13	8	22	16	11	70	21.4	3.03	5th
Plaster	Cement plaster	4	5	2	15	44	70	30.0	4.29	2nd
	Finish plaster	25	15	13	7	10	70	17.2	2.46	11th
	Casting plaster	25	18	14	10	3	70	15.8	2.26	14th

	Lime plaster	32	17	12	7	2	70	14.0	2.00	17th
Plaster of paris (POP)	Plaster of paris	12	6	12	15	25	70	24.5	3.50	6th
Brick	Engineering brick	20	10	11	21	8	70	19.7	2.81	8th
	Facing brick	16	14	19	10	11	70	19.6	2.80	9th
	Handmade brick	21	9	21	9	10	70	18.8	2.69	10th
	Fletton brick	30	16	15	7	2	70	14.5	2.07	16th
Wall paper	Vinyl wallpaper	24	20	16	6	4	70	16.8	2.40	12th
	Fabric wallpaper	26	15	16	9	4	70	16.0	2.29	13th
	Hand printed block wallpaper	27	14	19	6	4	70	15.6	2.23	15th

Source: **Author Field Survey, 2019**

Table 1.0 shows that majority of respondents strongly agree that all wall finishes in this research are mostly used but rank running on paint with a mean score of (4.99) always used wall finishes in building. Lime plaster which the percentage mean score of (2.00) was rarely used,

Table 1 .1: **Factors to be considered in Selection of wall Finishes.**

Wall Finishes	Factors	NS 1	SS 2	MS	HS	ES	NO	% SCORE	MEAN SCORE	RANK
Tile	Durability	0	3	5	24	38	70	30.7	4.39	1st
Paint	Durability	1	1	4	31	33	70	30.4	4.34	2nd
	Maintainability	0	3	8	22	37	70	30.3	4.33	3rd
Plaster of Paris	Durability	1	3	10	17	37	70	30.0	4.29	4th
Tile	Maintainability	2	3	5	24	36	70	29.9	4.27	5th
Brick	Durability	0	4	10	21	35	70	29.7	4.24	6th
Plaster	Durability	3	1	6	27	33	70	29.6	4.23	7th
Plaster of Paris	Maintainability	1	5	8	20	36	70	29.5	4.21	8th
	Appearance	2	4	10	17	37	70	29.3	4.19	9th
Brick	Maintainability	0	5	12	20	33	70	29.1	4.16	10th
Paint	Appearance	0	4	10	28	28	70	29.0	4.14	11th
Brick	Appearance	0	7	10	19	34	70	29.0	4.14	11th
Tile	Degree of comfort	3	2	12	26	27	70	28.2	4.03	13th
Plaster of Paris	Cost	0	10	11	22	27	70	28.0	4.00	14th

Wall paper	Maintainability	3	4	13	21	29	70	27.9	3.99	15th
Plaster	Appearance	1	5	19	15	30	70	27.8	3.97	16th
	Maintainability	1	8	9	28	24	70	27.6	3.94	17th
Paint	Degree of comfort	5	2	8	33	22	70	27.5	3.93	18th
Plaster of Paris	Installation	3	4	10	24	29	70	27,5	3.93	18th
Paint	Cost	1	9	13	22	25	70	27.1	3.87	20th
	Durability	3	3	18	22	24	70	27.1	3.87	20th
Brick	Installation	3	6	20	17	24	70	26.3	3,75	22nd
Wall paper	Effect of lightening	4	7	17	21	21	70	25.8	3.69	23rd
Tile	Installation	3	7	20	20	20	70	25.7	3.67	24th
Plaster	Cost	0	14	17	21	18	70	25.3	36.1	25nth
Wall	Cost	2	13	17	19	19	70	25.0	3.57	26dh

Source: **Author Field Survey, 2019.**

Table 1.1 above Indicates that respondentw strongly agree that Tiles have a good durability with a percentage score of (30.7%), Paint durability with percentage of (30.4%) and paint maintainability (30.3%) are extremely significant while cost is ranked with (27.1) when selecting them as wall finishes.

Table 1.2Occurrences / Severity of Defects in Wall Finishes

Wall Finishes	Types of wall finishes	Defect of Finishes	ND 1	MD 2	FD 3	SD 4	VSD 5	% Score	Mean Score	Rank
Paint	Water based/Oil based paint	Sagging	4	20	14	21	11	22	3.21	1st
		Crawling	4	17	16	31	2	22	3.14	2nd
		Bleeding	4	18	20	23	5	21	3.1	3rd
Tile	Ceramic// Quarry Stone/Clay tile	Fading	10	10	25	17	8	21	3.04	4th
		Buckling	15	14	14	14	13	20	2.94	5th
Paint	Water based/ Oil based/paint	Saponification	13	13	18	17	7	20	2.89	6th
Tile	Ceramic// Quarry Stone/Clay tile	Chipped	15	17	15	14	10	19	2.81	7th
Plaster	Gypsum/Lime/Finish/Cement/Casting plaster.	Bond failure	10	21	14	15	5	19	2.77	8th
Wall paper	Vinyl/Fabric/Woodchip/Hand printed wallpaper	Abrasion	6	25	14	12	4	19	2.76	9th
Paint	Water based/ Oil based/paint	Prolonged drying time	17	11	23	15	4	18.8	2.69	10th
		Yellowing	13	19	20	20	1	18.7	2,67	11th
Tile	Ceramic// Quarry Stone/Clay tile	Rust stain	15	15	19	10	5	18.5	2.64	12th
Brick	Facing/ Handmade/ Fletton/ Engineering Brick	Iron stain	20	15	10	13	8	18.4	2.63	13th
Paint	Water based/ Oil based/paint	Chalking	13	22	18	10	6	18.2	2.6	14th
Wall paper	Vinyl/Fabric/Woodchip/Hand printed wallpaper	Fading	10	28	23	7	5	17.5	2.56	15th
Brick	Facing/ Handmade/ Fletton/ Engineering Brick	Efflorescence	17	20	14	9	5	17	2.5	16th
		Insoluble deposit	15	25	14	12	4	17	2.5	16th
Tile	Ceramic// Quarry Stone/Clay tile	Cracking	18	20	25	15	2	17.2	2.47	18th
Plaster	Gypsum/Lime/Finish/Cement/Casting plaster.	Cracking	19	20	26	12	1	16	2.37	19th
		Dampness	20	15	19	18	1	16.5	2.36	20th
Paint	Water based/ Oil based/paint	Deterioration	21	21	17	11	2	16.2	2.31	21st
Wall paper	Vinyl/Fabric/Woodchip/Hand printed wallpaper	Dampness	25	19	20	9	3	15.6	2.23	22nd
Plaster of Paris	Plaster of Paris (POP)	Cracking	25	20	15	7	3	15.3	2.19	23rd
		Dampness	35	15	15	8	2	13.7	1.96	24th

Source: **Author Field Survey, 2019.**

Table. 1.2: Shows that majority of the respondents strongly agree that paint as wall finishing is affected by sagging with a mean score of (3.21) as a very severe defect while dampness (wall paper) with a percentage mean score of (2.23) was ranked lowest. Clients should engage professionals at the early stage of the project so as to help in early cost feasibility and to reduce cost of overrun.

Table 1.3:Performance of Wall Finishes

Wall Finishes	Types of wall finishes	VP 1	P 2	F 3	G 4	E 5	NO	% Score	Mean Score	Rank
Tile	Ceramic tile			4	27	39	70	31.5	4.5	1st
Plaster	Casting plaster		2	3	30	35	70	30.8	4.4	2nd
Plaster of Paris	Plaster of Paris		3	6	24	37	70	30.5	4.36	3rd
Brick	Engineering brick		1	9	28	32	70	30.1	4.3	4th
Tile	Quarry stone tile		2	11	26	31	70	29.6	4.23	5th
Plaster	Cement plaster		1	10	32	27	70	29.5	4.21	6th
Tile	Clay tile		2	18	25	25	70	28.3	4.04	7th
Paint	Oil based paint	2	10		40	18	70	27.2	3.89	8th
Plaster	Finish plaster	1	1	17	37	14	70	27.2	3.89	8th
Brick	Handmade	1	2	25	22	20	70	26.8	3.83	10th
	Facing	1	3	20	33	13	70	26.4	3.77	11th
	Fletton	1	5	26	30	8	70	24.9	3.55	12th
Wall paper	Fabric	2	6	26	29	7	70	24.3	3.47	13th
	Woodchip	3	2	32	29	4	70	23.9	3.41	14th
Plaster	Lime	3	6	30	27	4	70	23.3	3.33	15th
Wall paper	Hand printed	5	10	23	27	5	70	22.7	3.24	16th
Paint	Water based	2	3	23	31	11	70	21.7	3.1	17th
Plaster	Gypsum	2	4	18	33	13	70	21.4	3.06	18th

Source:Author Field Survey, 2019.

Table. 1.3: shows that the performance of ceramic tiles is excellent with a score of (31.5%), Casting plaster is good with % score of (3.08%) and Gypsum plaster is fair with % score of (21.4%).

Conclusion

Assessing the use of various wall finishes in buildings; preferences of wall finishes showed that paint is most preferred followed by tiles and plaster of Paris while bricks and wall paper are the least preferred. Evaluating the factors to be considered in selection of wall finishes in buildings revealed durability has the highest factor considered in the selection of wall finishes followed by appearance, maintainability, cost, degree of comfort and installation.Effect of lightening was rank the least. Occurrence of defects in wall finishes after comparison revealed defects in paint (sagging of paint) as most occurring while dampness in wall paper is the least occurring defect in buildings in the study area. Ceramic tile, plaster and blaster of Paris were ranked highest in performance and excellent when used in buildings.

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