EFFECT OF COLOUR PREFERENCE ON PROPERTY VALUE: THE IMPLICATION ON RESIDENTIAL REAL ESTATE MARKET IN AKWA IBOM STATE, NIGERIA

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ABSTRACT

There are many factors that contribute to property value, among them is colour preference of buyers or users of the properties. Colour preferences of residential properties were scarcely emphasized as an addendum to property value by Estate Surveyors and Valuers in research for real estate market attraction. This study focused on the effect of colour predilection of painted residential apartments in the property market in Uyo. The perception of Estate Surveyors on the influence of colour preference to price of properties was observed. The study used survey research design to collect data through questionnaires from the respondents. The research philosophy was interpretivism which is epistemological. Four categories of respondents were observed: The property users (132); Property developers (24); Estate Surveyors (44); and Colour experts (27). A total of two hundred and sixty (260) questionnaires were administered to the respondents and two hundred and twenty (227) questionnaires which were 87% of the returned instruments were used for the survey. The finding shows that colour preferences of residential properties were determinants to both their prices and demands in real property market. The study revealed that the residential properties with the colours of green and blue were mostly priced highest (80%) than other colours when compared with similar properties in the same location. The study therefore, concludes that the colours of residential properties were important factor for estimating the values of properties especially, residential apartments for marketability. The study recommends that colour preferences should not be neglected as it adds value to the properties thereby increasing the demand and the price for the properties.

Key Words: Colour preferences, Property values, Real estate market, Estate surveyors, Aesthetics

INTRODUCTION

The effect of colour predilection of painted apartments on property selection appears to be a less explored area of research, especially in Nigeria, despite its relevance in rating property value. Obviously, it is a very important property market attraction to real estate investors. This study examines the effect of colour preference on residential real property values with a view to maximizing investment satisfaction. There is a general acceptability that "property values reflect the probable price of a given property at a given time." This tends to support the opinion of Calla (2019) who argues that property value refers to "the fair market value of a given piece of property; though the actual price of the property may be higher or lower." Calla posits that property value takes into account the size and location of the property, as well as any improvements undertaken. People consider the value of properties when buying,

selling or renting such properties.

In property development cycle, painting of buildings occurs towards the completion stage of the properties. Property development involves a wide range of activities and processes from land purchase, planning and development which could be either low or high rise apartment buildings. Whatever the type of property development, the final stage of the project before letting/sales would involve painting, which adds aesthetics to the property. Yardney (2018) buttressed that an appealing first impression of a property that attracts tenants' (or eventual buyers') interest is the painting finishing which could quickly and effectively refresh the look of a house. Yardney stated that "gone are the days of splashing shady or slapdash colours as feature walls to grab attention." Emphatically, colour is a powerful form of communication, it can be attractive or repulsive, and so even if the finest architectural design were presented; if the colour were not appreciated, it would be rejected. What stirs up one's reaction in any colour may induce a very different reaction in someone else. Sometimes this is due to personal preference, and other times, it can be due to cultural background.

Properties are categorized according to the property types: residential property, agricultural property, commercial property, educational and industrial property. This study focused on residential real properties to examine the effect of colour preference in relation to the property value. Reasonable number of articles emphasized on some factors that contributed to the values of properties such as supply and demand of residential properties (Hui, 2004), location of properties (James & Beth, 2002), accessibility to the properties (Ada, 2016) and; property size (Igbinosa, 2011). At the household level of demand for residential real properties; beauty of properties plays vital roles in enhancing the value of the property which reflects tenants' choice. Real properties are developed for many reasons and whatever the reasons might be, painting of properties is an important aspect of development of properties. This accounts for the need for experts in colours, when choosing colours for buildings, to ensure chromatic balance. In property development cycle, colour selection and painting is important in real estate transaction. Colour rendering in real properties development add aesthetic value to the properties. Hence the need for a cursory look at the effect of colour preference on property value to add piquancy to residential real estate market in Akwa Ibom State.

LITERATURE REVIEW

Purposes of Residential Property Development

Real properties are developed for several purposes including residential uses for human habitations, to rest after businesses and works; sleeping; meeting with families, relatives and friends; and other domestic functions. Residential properties come in various designs (Cloues, 2005). Such designs include the single-family homes which tend to offer more privacy and space than other types of homes; multi-family homes which are essentially a home that has been turned into two or more units. McAlester and McAlester (2013) explained that some multi-family homes have a separate entrance for each unit, while some share a main entrance. Residential properties could be owner occupied or rented. When residential apartments are single-family occupied, it does not go through marketing

processes except where the developer builds for sale. In a situation where residential apartment is developed for owner occupation, the colour preference for paintings is usually subjective. However, if the residential real estate is developed for commercial purposes, the colour preference would require opinion survey from artists and real property agents who are familiar with the market situation. These intricacies are very important as they would be instrumental to price determination and value of the property.

Factors Responsible for Enhanced Residential Property Value

There are several factors responsible for improving the values of residential properties which are very known to many property dealers. Glaeser and Saiz (2008) denote that housing market outcomes could be influenced by a range of different factors. These factors are usually unavoidable when discussing property values. Some of the factors are: demand and supply; interest rate; accessibility; property type; style and age; property size; etc. Demand and supply factor for instance, is prominent in influencing the value of properties. The supply conditions which are influenced by a range of regulatory and geographic features are a key determinant of housing market outcomes. For instance, low housing supply responsiveness can result in volatile house price inflation and increases in house prices that appear to be semi-permanent. According to Grimes and Aitken (2006), "reduction in the number of habitable houses could result in upward pressure on house prices and rents." Factors such as low interest rates and easier credit standards have contributed to increased demand to purchase houses. People often do not foresee the impact that supply response would have on house prices in the future. Rising house prices have a tendency to overshoot and then ultimately reverse substantially. Some studies that listed the factors that influence property values did not give consideration to colour preference as one of the factors that affect property values, even though there is hardly any house that was not finished with a painting.

Historical Account and Concept of Colours of Paint

Historically, paint is one of the earliest inventions of mankind. This is evident in the cave paintings in Lascauox and Altermira. The use of paint by artists and for decoration is traceable to prehistoric times. Typical examples are their use for cave art. Evidences of cave painting were found at Altamira. Early evidences of the use of paints were also found



Figure 1: Hall of Running Bulls, left wall, Lascaux. c. 15,000 –13,000 BC. Dordogne, France **Source**: *Art Across Time*, (1999).

at Pair-non-Pair in the Gironde district of France and Fonte-de-Gaume in Dordogne, France and in Lascaux near Montignac also in the Dordogne, France (Gardner, 1980). Figure 1 "Hall of Running Bulls is the left wall of the cave in Lascaux. Other early examples of the use of paints are to be found in the Rock paintings of Australia, and in Greek Amphora.

The red or yellow ochre, hematite, manganese oxide, and charcoal may have been made by early Homo sapiens as long as 40,000 years ago (Craughwell, 2012). Ancient coloured walls at Dendera, Egypt, which have been exposed for years to the elements, yet still possess their brilliant colour, as vivid as when they were painted about 2,000 years ago are equally attestations to early development of paints. The Egyptians mixed their colours with a gummy substance, and applied them separately from each other without any blending or mixture. They appear to have used six colours: white, black, blue, red, yellow, and green. They first covered the area entirely with white, and then traced the design in black, leaving out the lights of the ground colour. They used minimum for red, and generally of a dark tinge. Several years ago, precisely 40 years, artists invented the first pigments which is a combination of soil, animal fat, burnt charcoal, and chalk, which was the origin of a basic palette of five colours: red, yellow, brown, black, and white (Sarah, 2016). Sarah revealed that from that moment, the history of colour has been one of perpetual discoveries, whether through exploration or scientific advancement. So, the invention of new pigments followed the developments of art's greatest movements from the Renaissance to Impressionism.

Consequently, artists experimented with colours as never before seen in the history of painting. The views of Woodbridge (1991), Bently and Turner (1997) and Talbert (2007) do not differ as they submit independently, that paint is any pigmented liquid, liquefiable, or mastic composition that, when applied to a substrate in a thin layer, converts to a solid film. They validate that the solid film is most commonly used to protect, colour, or provide texture to objects which real property is part of. Further disclosed is that paint could be made or purchased in many colours and in many different types, such as water-colour, poster colour, oil colour, acrylic, gouache. It can be synthetic or natural. Paint is typically stored, sold, and applied as a liquid, but most types dry into a solid. Paint is used to protect all sorts of buildings and structures from the effects of water and sun. Wooden objects such as houses are usually painted because a coat of paint prevents water seeping into the wood and making it rot. The paint also helps to prevent the wood from drying out and becoming firewood in the hot sun. Metal structures and objects of all sorts are painted to stop them from rusting. A very large steel structure such as a bridge must have a team of painters who keep the paint in good condition all the time. Since pre-historic times, people have painted the inside walls of their houses to make them look attractive and soothing. Painting and decorating the exterior (outside) and interior (inside) of houses is an important industry in many countries. Besides, all sorts of objects are decorated with paint to make them attractive. This includes furniture, toys, tools and utensils, and street fittings. Painting accentuates property value

Relevance of Painting to Property Value

Building of any type needs paint(s) to give it the finishing that the user desires. It is the finishing that enhances the demand for the property. Kristine (2017) argues that "selling a house should be a profitable venture for a homeowner so, in order to maximize the profits on a home sale, it is needful to increase the value of the property with exterior and interior painting." According to Cole (2018), online real estate database company (Zillow) conducted a paint colour analysis in 2018 with more than 135,000 photographs of homes that sold around the country between January 2010 and May 2018:" they compared how certain

paint colours impacted their sale prices on average; the analysis controlled for square footage, the house's age, the date of the transaction and location, and then compared the sale prices of homes with white walls versus those with more colourful paints. It was found that homes with front doors painted charcoal, smoky black or a rich jet black sell for \$6,271 more than expected. "For a seller, painting a front door, it is one of the least expensive home prep projects, but also one that can have a powerful impact on a home's sale price," Blake (2018) analysed another study of Zillow's 32,000 photos from sold homes around the country (USA) to see how certain paint colours influenced the average sale price and, their results were surprising. According to Blake, homes with walls painted **blue or light grey** added as much as \$5,400 per room in overall value. Blake found that homes with white bathrooms sold for an average of \$4,035 less than homes with blue or light grey coloured bathrooms.

Julie (2014) explained from her experience about the influence of colour of a house on its sale price. She argued that colour does indeed affect the sales price of real estate especially when painted both inside and outside. She cited a case of a property in Phoenix that had been on the market for more than two years. The owners continually dropped the price month after month, until she discovered it priced about \$90,000 under market value. The outside of the house was yellow, and each interior room was a different and obnoxious colour. After the inspection of the otherwise sound structure, she offered \$100,000 under market value, all cash, with closing in 10 days. She spent about \$10,000 on a couple of minor cosmetic improvements, painted inside and out, and immediately put the house back on the market at 85 percent of market value. The house sold for full asking price the day after she put the sign up, to a family who had been driven by the eyesore for several years, and had always liked the architectural design and location. The case was illustrated with two multiresidential properties: one of them is decent in appearance, see Plate A, and the other is dirty in appearance, The houses in Plate A and B below: are used to explain pre-sale conditions in comparative terms, hence the choice of houses from Uyo Urban, Akwa Ibom State, Nigeria.





Plate A – Decent Painted Residential Multifamily Property in Uyo. Photos, Credit: Authors (2019)

Plate B – Dirty fade painted Residential Multifamily Property in Uyo.Photo Credit: Authors (2019)

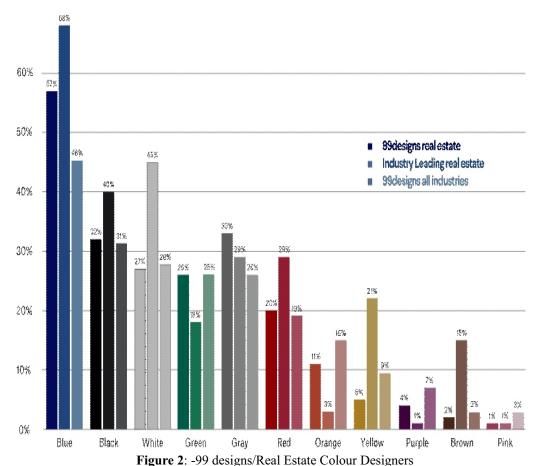
Andrew (2015) argues that repainting is one of the most common of these pre-sale improvements, because it is relatively inexpensive and usually has a big impact on ability to attract an offer quickly and at ideal price point. In order to dive in a bit further and be 100% sure that you should, in fact, paint your house before you sell it, Andrew presented some questions that needed to be asked:

- 1. Did you hang any pictures on the walls with nails?
- 2. Are there holes in the wall or patches on the wall that have not been fixed and painted over?
- 3. Is there more than one colour on the walls of your house (not including white)?
- 4. Is there writing on the walls anywhere in the house?
- 5. Is there an accent wall or any murals in the house?
- 6. Have you lived in the home for over 5 years?
- 7. Are you a smoker?

If the answer is yes to any of the above questions, then painting a house before selling it is unavoidable.

The Colour Perception by Property Managers

Colour is a personal choice, but understanding colour preference in marketing can help managers make an informed decision for property business (Suhr, 2014).



Source: The 99 designs, Melbourne Australia (Craig, 2012)

Craig (2012) explicates that 99 designs is a platform of colour designers which sampled and analyzed the colour palettes of over 600 real estate industry logos. They evaluated the brand personality traits that realtors want, and consulted colour psychology experts in order to decide through the appraisal of colours to verify how real estate colours add up demand for properties. The chart in Fig1 shows the perception of real estate professionals; like many other industries, they made preference for blue: over two-thirds of industry-leading colours feature blue, with the colour being requested in over 50% of real property designs as displayed in the histogram chart of colours in figure 2. But other colours made a strong appearance: green, for example, was requested about 26% of the time in briefs for real estate development, and red appeared in roughly about 29% of real estate industry choice. Gray, black, and white were also popular as easy companions to any colour. Pinks, on the other hand, appear in less than 2% of all real estate design, ranking last as a colour choice in the industry (Craig, 2012). Perhaps its softness made it seem out of place, or maybe its youthfulness and trendiness subtracted from the relatively conservative and trustworthy image that can be so important in making sales within the industry.

Effect of Colour Preference on Real Property Value

According to Milla (2014), the power of colour theories on how people respond to colour differs, but people do seem to have very similar reactions to specific hues. Human beings are intensely visual creatures. We largely navigate the world by sight. Dzulkifli and Mustafar (2013) observed that even our memories are oftentimes defined by the images we recall, more than anything else. There has been, and continues to be, a great deal of theorizing about the ability of colour to influence people's emotions. Nourse (2015) stated that more importantly for our purposes, people selling homes, designers and other professionals rely on commonly-held ideas about how colours affect a potential buyer's impression of a property and use that information to increase sales. The reality of how colour makes us feel is not as clear cut as you may have been led to believe, however, and it's important to keep that in mind when selecting hues for the interior or exterior of a home. Not everyone agrees on the psychology of colour, for instance, Ciotti (2018) noted that the hypotheses regarding the connection between colour and emotion are seldom backed by hard data. Nonetheless, some very successful designers swear by the relationship between specific hues and emotions, and have established conventions they follow in that regard. You can make up your own mind about whether or not the common beliefs about colour and emotion hold true, but they have been used and continue to be used in real estate. Some Realtors and designers say that perception of how colour influences decisions has helped them in selling homes. Visualization exercises could make the relationships between colour and emotion even clearer. "Theories on how we respond to colour differ, but people do seem to have very similar reactions to specific hues."

"Given the prevalence of colour, one would expect colour psychology to be a well-developed area," (Elliot & Maier, 2007). "Surprisingly, little theoretical or empirical work has been conducted to date on colour's influence on psychological functioning, and the work that has been done has been driven mostly by practical concerns, not scientific rigor." Ciotti (2018) explained that "despite the general lack of research in this area, the concept of colour psychology has become a hot topic in marketing, art, design, and other areas." Much of the

evidence in this emerging area is anecdotal at best, but researchers and experts have made a few important discoveries and observations about the psychology of colour and the effect it has on moods, feelings, and behaviours. However, Ciotti's submission that there is lack of rigorous scientific research in the area of psychology of colours appears to be the myriads of research findings available in this area of study. Ekwere (2016), for instance, observes that some psychological effects can be elicited on viewers depending on the colour scheme. The effects include:

- i. Altering mood
- ii. Making small spaces seen larger and vice versa creating feeling of relaxation
- iii. Influencing perception.

Fairly (1979) in Ekwere (2016) reported "that visual stimulation by the use of warm colours and bright lighting may cause increasing muscular tension, respiratory rate, heart action, blood pressure and even brain activity". Warm and cool colours elicit the feeling of warmth and cold, respectively. Warm colours – red, yellow and orange are colours that created joy, upliftment excitement on the beholder. They are generally stimulating. Yellow, for instance, attracts attention faster than any other colour because it helps to release serotonin in the brain which is essential for causing happy and green create the feeling of relaxation. They are calming. Cool dark and somber colours are depressing.

The knowledge of the psychological effects of colours on humans is the reason for the choice of colours for different places. Medical facilities, trauma centers, and state correctional facilities are often painted in light blues and greens, while winter skiing lodges are painted in warm yellows, oranges and browns to welcome those coming in from subzero temperatures (Ocvirk, *et. al*, 2002). Preference strength was figured on number of standard deviations from the mean. From this it was inferred that people in real estate want to be perceived as luxurious, mature, modern and serious.

Perception of Colour Preference from Property Users

Kendra (2019) observed that our feelings about colour are often deeply personal and rooted in your own experience or culture. While perceptions of colour are somewhat subjective, there are some colour effects that have universal meaning. According to Kavanaph (2014), colours in the red area of the colour spectrum or the Colour Wheel, are known as warm colours and include red, orange, and yellow. These warm colours evoke emotions ranging from feelings of warmth and comfort to feelings of anger and hostility. Kendra (2019) posits that colours on the blue side of the spectrum are known as cool colours and include blue, purple, and green. These colours are often described as calm, but can also call to mind feelings of sadness or indifference. For example, while the colour white is used in many Western countries to represent purity and innocence, it is seen as a symbol of mourning in many Eastern countries. Colours also have different meanings in different cultures. Figure 2 below shows various colour types and the meanings and associations.

COLOR	MEANINGS AND ASSOCIATIONS
Red	Anxiety, Arousing, Daring, Dominant, Energy, Excitement, Health, Life, Love, Passion, Power, Protection, Spirited, Stimulating, Strength, Up-To-Date
Orange	Abundance, Arousing, Comfort, Daring, Excitement, Extraversion, Fun, Happiness, Lively, Security, Sensuality, Spirited, Warmth
Yellow	Arousing, Cheerful, Confidence, Creativity, Excitement, Extraversion, Friendliness, Happiness, Optimism, Self-Esteem, Sincerity, Smiley, Spirited
Green	Calm. Comfort. Equilibrium. Harmony. Health. Hope. Nature. Outdoorsy. Peace. Prosperity. Relaxation. Security. Serenity. Soothing. Tender
Blue	Calm, Comfort, Competence, Coolness, Dignified Duty, Efficiency, Intelligence, Logic, Peace, Reflection, Relaxation, Reliability, Security, Serenity, Soothing, Successful, Tender, Tranquility, Trust
Purple	Authenticity, Charming, Dignified, Exclusive, Luxury, Quality, Regal, Sensuality, Sophistication, Spiritual, Stately, Upper Class
Pink	Charming, Cheerful, Feminine, Gentle, Nurturing, Sincerity, Soft, Sophistication, Tranquility, Warmth
Brown	Nature, Outdoorsy, Reliability, Ruggedness, Security, Support, Tough
Black	Dignified, Efficiency, Elegance, Emotional Safety, Glamour, Power, Richness, Ruggedness, Security, Sophistication, Stately, Substance, Tough, Upper Class
White	Calm, Clarity, Cleanness, Down-to-Earth, Happiness, Heavens, Honest, Hygiene, Innocence, Peace, Purity, Serenity, Sincerity, Soothing, Tender

Figure 3: Colour meaning and association **Source**: Nick Kolenda – Psychology & Marketing (Kolenda, 2019)

Research has demonstrated in many cases that the mood-altering effects of colour may only be temporary. Nicola (2016) postulated that blue room may initially cause feelings of calm, but the effect dissipates after a short period of time. However, the existing research has found that colour can impact people in a variety of surprising ways: One study found that warm-coloured placebo pills were reported as more effective than cool-coloured placebo pills (Karolina & Przemysław, 2016).

Colour can play an important role in conveying information, creating certain moods, and even influencing the decisions people make. Colour preferences also exert an influence on the objects people choose to purchase, the clothes they wear, and the way they adorn their environments. People often select objects in colours that evoke certain moods or feelings, such as selecting a car colour that seems sporty, futuristic, sleek, or trustworthy. Room colours can also be used to evoke specific moods, such as painting a bedroom a soft green to create a peaceful mood. So what's the bottom line? Experts have found that while colour can have an influence on how we feel and act, these effects are subject to personal, cultural, and situational factors.

Some pigments lack perceivable colour. Thus, they do not resemble any of the hues of the spectrum as no colour quality is seen in them. Therefore since there are no distinguishable colours in black, white and gray they are referred to as neutral. White, for instance, is considered as the presence of all colours "because it occurs when a surface reflects all the colour wavelengths in an equal degree". On the other hand, black is usually seen as the absence of colour since it occurs when a surface absorbs all the colour rays and reflects none of them. The neutrals are indicated by the quantity of light reflected, whereas, colour is concerned with the quality of light (Ocvirk, et al., 2002). In art, actually, especially in painting black and white, are not seen as colours. Therefore absolute black or white are rarely used. It is worthy of note that colour is synonymous with light. Without light there is no colour. Colour begins with and is derived from light, either natural or artificial. Where there is little light, there is little colour; where the light is strong, colour is likely to be particularly intense. When the light is weak, such as at dusk or dawn, it is difficult to distinguish one colour from another" (Ocvirk, et. al, 2002). There is no colour in the night where there is no light. That is why black is seen as the absence of light.

Colour plays vital role in the general property management and marketing. Colour is one of the most important aspects of the design of any room. It can create a mood or evoke memories of a far off, distant place. Colours can even make you smile, relieve your stress, and help you wander off into a good night's sleep. So how do you know which colours are best for each task? That's a good question. Designers are always throwing around terms such as warm colours and cool colours. But what do they mean? Gaining an understanding of these terms will help you determine what to look for when choosing colours for your home décor.

Methodology

The study was carried out in Uyo, Akwa Ibom State. According to Akwa Ibom State Government (AKSG) (2012), Akwa Ibom State is one of the 36 states of Nigeria. The State is located in the South-South geopolitical zone and it is bordered on the east by Cross River State, on the west by Rivers State and Abia State, and on the south by the Atlantic Ocean and the southernmost tip of Cross River State. Uyo is the capital city of the State.

The population studied comprised Estate Surveyors and Valuers, occupants of residential properties and the developers (landlords and contractors). The sample of the study was drawn from the population and the sample size was two hundred and thirty (230) respondents which comprised property occupiers (150), property developers (30), estate surveyors (20) and Painters (30). The sampling techniques were clustered sampling for selected areas where data were obtained; purposive sampling was used to select developers, Estate Surveyors and painters. The study used survey research design to collect data through questionnaires from the respondents. The research philosophy was Interpretivism which is epistemological and it assessed the differences between the respondents' perception for colours of paint for enhanced property value. The data were collected from two sources, which were primary and secondary sources. The primary source utilized the questionnaire which was structured while the secondary source utilized journals and other literature materials. The statistical tool adopted was descriptive statistics.

Findings

Table 1. Administration of Questionnaire and the collection

Respondents	Administered Questionnaires	Returned Questionnaires	Percentage of Returned
Property occupiers	150	132	58
Property developers	30	24	11
Estate surveyors	50	44	19
Colour experts	30	27	12
Total	260	227	100

Source: Authors Survey, 2019

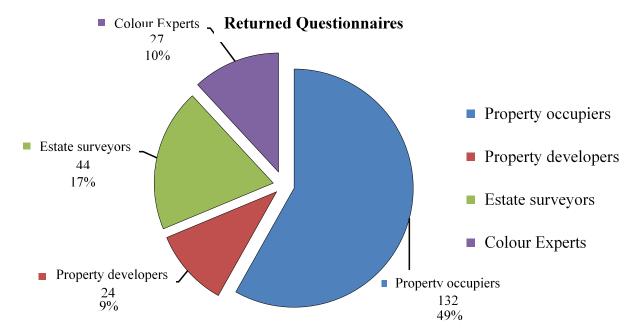


Figure 4–The distribution of questionnaires and the number returned by the respondents

Table 1 shows the distribution and the return of the questionnaires. In the table, there were four strata of respondents: the property occupiers, developers, estate surveyors and colour experts. The table showed also, the percentages of the returned questionnaires from the respondents calculated from the administered questionnaires. The percentages were derived by dividing each stratum of returned questionnaire by the total number of administered questionnaires (260) and multiplying the quotient by 100% to get the percentage of the returned questionnaires for each stratum of respondents. The total percentages of the four strata of the respondents resulted in the percentages of the returned questionnaires to the administered questionnaires (85%).

Table 2. Influence of Colour Preference on Price of Properties in Uyo Metropolis

Colours Preferences	Price rated	Demand rated
Black	0.2	0.4
Blue	0.8	0.8
Brown	0.7	0.6
Green	0.8	0.7
Orange	0.6	0.4
Pink	0.5	0.5
Purple	0.6	0.4
Red	0.4	0.5
White	0.3	0.4
Yellow	0.5	0.6

Source: Authors survey, 2019

Influences of Colour Preferences on Prices and Demand of Properties

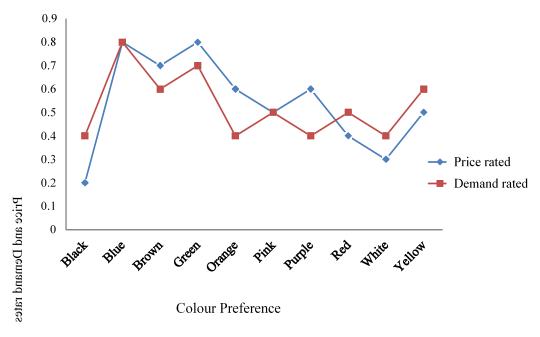


Figure 5. This shows the influence of colour preferences of properties on prices and demand in Uyo.

Table 2 and figure 5 show the influence of colours of residential properties on the price and demand. The demand for the properties was either for outright purchase or rent for occupation. It could be seen that the residential properties with the colours green and blue attracted highest price than other colours when compared with similar properties in the same location. The table also shows that the demand ratio for properties was highest with green colour than other colours. The values in ratios were obtained by converting the percentage into decimal fraction.

Conclusion

This paper concludes that colour preference in real estate development is inevitable. This implies that enhancement in value of properties especially residential properties could be achieved through embellishment of preferred colours of potential property users. The preference of prospective buyers or renters of properties are influenced by the colours of paints used at the finishes of a property and this adds value to the properties thereby increasing the demand and price ratios of the properties.

Recommendation

What people see most in the built and natural environment is colour. This accounts for the necessity to create an aesthetically sound environment. Colour affects people's feelings, changes moods and influences choices. Certain colours and their combinations can mar a product while other can make them and maximize productivity. Some can cause visual fatigue and can also irritate, whereas, others can minimize visual fatigue and relax the whole body. No wonder Ekwere (2005) observes that of all the elements of design/art colour has the most amazing effects on humans as well as animals. This study, therefore, recommends that colour preferences should not be neglected as it adds value to the properties thereby increasing the demand and the price for the properties.

REFERENCES

- Ada, W. (2016). Accessibility of Real Estate by Transportation as a Determinant of the Development of Suburban Real Estate Markets. *Journal of Real Estate Management and Valuation*. 24(1). 5–18. DOI: https://doi.org/10.1515/remav-2016-0001
- Adams, L. S. (1999). Art Across Time. New York: McGraw-Hill College.
- Andrew J. E. (2015). Color and psychological functioning: a review of theoretical and empirical work. Retrieve from https://doi.org/10.3389/fpsyg.2015.00368
- Bently, J. and Turner, G.P.A. (1997). *Introduction to Paint Chemistry and Principles of Paint Technology*. Australia. CRC Press.
- Blake, I. (2018). Residential Paint Colors That Can Increase Your Home Value. Retrieve from https://trulinepaintinginc.com/colors-increase-home-value/
- Calla, H. (2019). Definition of Property Value. Retrieved from https://www.sapling.com/8010292/definition-property-values
- Ciotti, G. (2018). The Psychology of Color in Marketing and Branding. Retrieved from

https://www.helpscout.com/blog/psychology-of-color/

- Cloues, R. (2005). <u>"House Types"</u>. *New Georgia Encyclopedia* (2013-08-22 ed.). Georgia Humanities and the University of Georgia Press. Retrieved 2019-10-10
- Cole, R. (2018). How Color Impacts How Much Your Home Sells For. Retrieved from https://www.kdhouses.ca/?gclid=EAIaIQobChMIt-Aw9mm5QIVmLPtCh0tYQyMEAA
- Craig, E. (2012). "Xconomy: 99designs Crowdsources Its Own New Website Design". *Xconomy*. Retrieved from https://99designs.com/web-design?utm_source= google&utm_medium
- Craughwell, T. J. (2012). 30,000 years of inventions. New York: Tess Press.
- Dowall, D. E. (1993) "The Role and Function of Urban Land Markets in Market Economies." In: Proceedings of the Workshop on Privatization of Land in Ukraine, Ukraine, May 12-14. (10) (PDF) A Study into Land Supply and Demand for Property Development in Colombo. A vailable from: https://www.researchgate.net/publication/270059000 A Study into Land Supply and Demand for Property Development in Colombo [accessed Jun 22 2019].
- Dubois, Lou (2011-06-27). "Matt Mickiewicz, Co-founder of 99designs". Inc.com. Retrieved 2018-07-27.
- Dzulkifli, M. A. & Mustafar, M. F. (2013). The Influence of Colour on Memory Performance: A Review. Malays Journal of Medical Science 20(2): 3–9.
- Ekwere, S. E. (2005). Colour in Instructional Media Design and Secondary School Students Academic Performance in Fine Arts. A PhD Thesis, Faculty of Education, University of , Uyo.
- ... (2016). Optimizing Colour Experience in Designing Sustainable Landscape. GRASPACT Journal of Arts and Technology. Department of Fine and Industrial Arts, University of Uyo, Uyo, Akwa Ibom State, Nigeria. 1(1). Uyo. Pp. 116 – 124.
- Elliot, A. J. (2007). Color and Psychological Functioning: Current Directions in Psychological Science. Sage Journals Retrieved from https://journals.sagepub.com/doi/abs/10.1111/j. 1467-8721.2007.00514.x?journalCode=cdpa
- Elizabeth Watson (2013). A closer look at some of the supply and demand factors influencing residential property markets. Reserve Bank of New Zealand Analytical Note series ISSN 2230-5505. Wellington NEW ZEALAND www.rbnz.govt.nz

- Gardner, L. (1980). *Gardner's Art Through the Ages*. 7th ed. San Diego: Harcourt Brace
 Jovanovich Pub.
- Glaeser, E, J Gyourko, and A Saiz (2008), 'Housing supply and housing bubbles', NBER Working Paper No. 14193, July 2008
- Grimes, A and A Aitken (2006), 'Regional housing markets in New Zealand: House price, sales and supply responses', Centre for Housing Research Aotearoa New Zealand, Department of Building and Housing, and Housing New Zealand
- Hui, E. C. (2004) "An empirical study of the effects of land supply and lease conditions on the housing market: A case of Hong Kong," Property Management, 22(2): 127-154. (10) (PDF) A Study into Land Supply and Demand for Property Development in Colombo. A v a i 1 a b 1 e f r o m: https://www.researchgate.net/publication/270059000 A Study_into_Land_Supply_and_Demand_for_Property_Development_in_Colombo [accessed Jun 22 2019].
- Igbinosa, S. O. (2011). Determinants of Residential Property Value in Nigeria *A Neural Network. International Multidisciplinary Journal, Ethiopia. 5*(5), Pp. 152-168. DOI: http://dx.doi.org/10.4314/afrrev.v5i5.13. Retrieved September 22, 2019.
- James F. & Beth W. (2002). Estimating the Connection between Location and Property Value. *Journal of Real Estate Practice and Education*. *5*(1). 17-25
- Julie B. (2014). What influence does the color of a house have on its sale price? Retrieved from https://issuu.com/bainbridgeislandreview/docs/birjuly27
- Karolina, Ś. & Przemysław, B. (2016). The Effect of the Type and Colour of Placebo Stimuli on Placebo: Effects Induced by Observational Learning. PLoS One, 11(6). Retrieved from https://www.ncbi. nlm.nih.gov/pmc/articles/PMC4928846/
- Kavanagh, C. (2014). 4 thoughts on "Do certain colors evoke emotion?" SiOWfa14 Science in Our World: Certainty and Cont. https://sites.psu.edu/siowfa14/
- <u>Kendra, C.</u> (2019). How Colors Impact Moods, Feelings, and Behaviors. Retrieved from https://www.verywellmind.com/color-psychology-2795824
- Kolenda, N. (2019). Psychology and Marketing. Retrieved from https://www.nickkolenda.com
- Kristine Tucker (2017). Does Painting My House Make It Worth More When I Sell? Retrieved from https://pocketsense.com/fix-up-house-sell-4338.html
- McAlester, Virginia; McAlester, Arcie Lee (2013). A Field Guide to American Houses:

- <u>The Definitive Guide to Identifying and Understanding America's Domestic Architecture.</u> Alfred A. Knopf. <u>ISBN 9781400043590</u>.
- McDonald, C (2013), 'Migration and the housing market', Reserve Bank of New Zealand Analytical Note, 2013/10 Reserve Bank of New Zealand Analytical Note Series 22 –
- Milla M. (2014). 20 Color Theory Facts You Should Know. Retrieved from https://www.complex.com/style/2014/08/color-theory-facts-you-should-know/
- Ministry of Business, Innovation & Employment (2013), 'Residential land available in Auckland',http://www.dbh.govt.nz/UserFiles/File/Publications/Sector/pdf/residentialla n- available-in-auckland-report.pdf
- Nicola, L. (2016). Color Psychology: How Colors Impact Moods, Feelings, and Behaviors. Retrieved from https://www.awpnow.com/main/2016/06/09/color-psychology/
- Nourse, E. (2015). The Powerful Effect of Color in Real Estate: An In-Depth Guide to Color in Your Home. Retrieved from https://customerrealty.com/wp-content/uploads/pdf/color-in-home.pdf
- Ocvirk, O. G., Stinson, R. E., Wigg, P. R., Bone, R. O. and Cayton, D. L. (2002). *Art Fundamentals: Theory and Practice*. McGraw-Hill Companies, New York. 354p.
- Sarah, G. (2016). A Brief History of Colour in Art. https://www.artsy.net/article/the-art-genome-project-a-brief-history-of-colour-in-art Retrieved on the 21 June, 2019
- Suhr, H. C. (2014). Online Evaluation of Creativity and the Arts. Routledge.
- Talbert, R. (2007). Paint Technology Handbook. Michigan. Grand Rapids.
- Woodbridge, P. R. (1991). Principles of Paint Formulation. New York. Springer
- Yardney, M. (2018). 10 Steps to a high-profit renovation. Retrieved from https://propertyupdate.com.au/10-steps-to-a-high-profit-renovation/