EPiC Series in Built Environment

Volume 4, 2023, Pages 157–165

Proceedings of 59th Annual Associated Schools of Construction International Conference

Political Consumerism in the Built Environment

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Architectural, engineering, and construction firms design the built environment in a continuing effort to appeal to the home-buying public. Firms' decisions include the exterior finishes that the public see and judge. The main objective of this study was to investigate whether material design elements from the built environment would commonly be perceived to have a political affiliation. Additionally, the study investigated if political consumerism could be seen in respondents' perceptions of the materials when aligned with (or in conflict with) their party. Architectural renderings of the same home with different exteriors (i.e., brick, stucco, or painted wood siding) were presented as experimental stimuli. The study collected data from 584 nationwide respondents. Interestingly, both major parties of Republicans and Democrats identified wood siding as representing their own political party while identifying an alternate exterior finish (usually brick) as representing their opposing party. The political consumerism behavior of reward was uncovered in respondents placing a higher perceived value on the exterior finish with which they identified.

Key Words: Built Environment, Political Consumerism, Exterior Finishes

Introduction

Perhaps at no other time in our history has our nation been so politically divided. The news we watch, the cars we drive, and even the homes we live in seem to project political ideologies (Ordabayeva & Fernandes, 2018; Mercurio & Aiken, 2022). People want to shop for products that provide them with a sense of self-congruence (Duman & Ozgen, 2018). Self-congruence explains how consumers see the brand as similar in their values, behaviors, and self-concepts (Lee, Motion, & Conroy, 2009). Since so many firms and brands are routinely categorized as either Democratic or Republican (Gelb & Sorescu, 2000), could these politically charged consumer behaviors (i.e., rewarding through purchase or punishing through avoidance) be observed based on a building's perceived party affiliation?

Strategic decisions by architecture, engineering, and construction (AEC) firms impact the material selection for the built environment. These decisions are expressed and seen in the design and construction of our built environment. Exterior finishes are part of these design decisions and may have the possibility of being seen as representing a political affiliation. Large commercial buildings are highly complex and consist of multiple exterior design elements that make it challenging to isolate and control for in research. For this reason, this study focuses on residential construction. Utilizing the same experimental home, but with different exterior finishes, allows for the isolation of variables

associated with political affiliation. Political consumerism research has shown that consumers will prefer brands and products that are seen to be copartisan, values-congruent, and sharing their political affiliation (Duman & Ozgen, 2018). This preference extends to consumers both rewarding brands that align with their self-image and punishing brands that are in conflict (Duman & Ozgen, 2018).

The purpose of this work is to investigate whether different building materials, specifically exterior finishes, are interpreted by respondents as having an implicit political affiliation. If exterior finishes are interpreted as having a political affiliation, it presents an opportunity for AEC firms to make more informed decisions during design. Exterior materials seen as in conflict with the local partisan affiliation could be avoided while those materials that are seen as copartisan could be prioritized. Exterior material selection could be used to align with a target customer market drawing on consumer behaviors to reward (or punish) a building based on alignment (or misalignment) with their personal political affiliations. This decision strategy could be utilized to maximize return on investment for future developments.

Literature Review

Political Consumerism

How people vote seems to have a direct relationship to how they shop, where they shop, and the products they purchase (Duman & Ozgen, 2018; Ordabayeva & Fernandes, 2018). Even singular items in our refrigerators popularly project certain political orientations (Keefe, 2020). Political consumers are those who are highly conscious of political and ethical issues and have the motivation to change organizational practices; therefore, political consumers have higher tendencies to express their political identification through consumption behaviors (Sandikci & Ekici, 2009). Consumers not only reward firms that signal parallel political values, but they also tend to punish those firms that do not. This interaction of politics with purchase behavior is the essence of political consumerism. The term political consumerism has been defined as "consumer choice of producers and products based on political or ethical considerations, or both" (Stolle, Hooghe, & Micheletti, 2005, p. 246).

Products are frequently labeled by consumers as either Democratic or Republican (Gelb & Sorescu, 2000. Only recently have researchers uncovered the specific trait adjectives convey political characteristics. Mercurio and Aiken (2022) recently found that adjectives such as Traditional, Conservative, Fiscally Responsible, and Rugged are often deemed more Republican; while Sophisticated, Exciting, and Socially Responsible are traits associated with the Democratic party. Thus, consumers assign political images and appear fully aware of the politicization process. They tend to punish or reward brands because of a perceived association to a particular political ideology (Sandikci & Ekici, 2009). Consumers usually avoid the brands they oppose politically because they believe that those brands "do not have self-congruence, they distract the well-being of the society by polarizing and conservatizing it" (Duman & Ozgen, 2018, p. 475). While this process of political consumerism has been studied for some time (Stolle, Hooghe, & Micheletti, 2005), it has only received limited attention in construction, real estate, and the built environment.

Politics In the Built Environment

Gimpel and Hui (2015) examined respondents' preferences of differing residential properties based on their political affiliations. Respondents were shown four different types of homes ranging from an urban row-house to a two-story rural home. These photos were accompanied by socioeconomic information for the neighborhood. They found respondents favored properties in a neighborhood that aligned with their political party. When researchers later controlled for socioeconomic information, respondents drew upon other differentiating factors, as political "signals" of the properties, to decode

and ascribe their political affiliations. Democrat respondents least preferred the two-story home location representing a rural setting, while Republicans least preferred the location closely representing an urban row-house location. The essence of signaling theory is that parties to transactions have differing levels of information; and hence, consumers must make inferences based on what firms (in this case builders) choose to project as informational cues (Kirmani & Rao, 2000; Aiken & Boush, 2006). Potential home buyers evaluate a wide range of signals – from siding to windows, landscaping to entryways.

Partisan alignment with an entire neighborhood has been found to not be the top priority in selecting a home (Mummolo, 2017). Preferences for quality and affordability were primary driving factors. Still, a copartisan neighborhood was found to be an influencing factor. With considerations of copartisan as part of the deciding process, AEC firms have potential to build homes that draw on these preferences to aid in consumers selecting the homes they design and build. That is, AEC firms must clearly understand the signals they are sending as well as how those signals are likely to be interpreted.

While research has been completed on copartisan preference in neighborhood selection, this research expands on this by isolating variables through architectural renderings. Showing survey subjects the same building but with varying exterior materials to see if these materials are interpreted as having a partisan affiliation.

Method

This study utilized a between-subjects experimental design wherein Internet subjects were recruited through an online agency. Hulland and Miller (2018) found that the benefits of recruited Internet samples included reduced costs, quick responses, increased participant diversity, and superior data quality. In this case, assuming that older respondents would be more likely to have home-buying experiences as well as more established political viewpoints, the recruitment of respondents was filtered for being over 30 years old and US citizens. Subjects were exposed to one of three possible conditions (i.e., a brick, a stucco, or a painted wood-siding home rendering).

The survey had three major sections. First, respondents were introduced to the research, told of the survey progression, and asked to imagine they were actively searching for a mid-sized home to purchase. They were asked to provide consent, and then they were exposed to one of the three possible home renderings. All of the renderings were professionally designed by an outside architectural firm and were made to reflect typical sales renderings found online. Upon the firm's recommendation, the wood-sided house was presented in a neutral light-grey color. Further, in order to increase realism, above the rendering was a sales-oriented paragraph that generically described the home as a "blend of comfort and convenience", a "tradition of excellence", "1,840 square feet with 3 bedrooms and 2 baths", and was said to be "resting in a friendly neighborhood". The paragraph increased the realism of the online sales-environment, and also served to keep respondents on the page and paying attention to the stimulus.

Section two of the survey began by administering two attention-check questions regarding the home's door color and exterior. These two questions would later serve to expose respondents who had not properly filled out the survey. Then, 15 semantic differential questions were asked on a sliding scale from 0 – 10. Each adjective pair had anchor points of words antithetical in meaning. The adjectives were derived from the work of Aaker (1997), Valette-Florence et al. (2011), Duman and Ozgen (2018), and Mercurio and Aiken (2022). Finally, respondents were asked to rate the likelihood that the

home would sell below, at, or above market average. This question was also administered on the same sliding scale.

Finally, section three of the survey asked questions about political consumerism, political party membership and partisanship, as well as various demographics. Huddy, Mason, and Aaroe's four-item political partisanship scale (2015) utilized 7-point ratings and would help to distinguish levels of connectedness to respondents' parties. The scale yielded a Cronbach's alpha value of 0.905, indicating an excellent level of reliability (George & Mallery, 2003). Accordingly, a new partisanship variable was computed as the sum of the four scale items. Demographics included gender, age groups, education levels, and income.

While 720 respondents were distributed across the survey conditions, a total of 584 provided usable data. Half of the drop in viable respondents were due to the attention check questions (i.e., they did not accurately report the home's siding material). Then, roughly one quarter were due to non-completion, and the remaining quarter were dropped due to inordinately low response times (often with a lack of variance within data). The data set contained 279 women (47.9%), 343 respondents in their 30s (58.7%), and 329 college graduates (56.3%), with the largest income group reporting $50,000 - $100,000 annually (n = 239; 40.9%). Lastly, 120 (20.5%) respondents were members of the Republican party, 261 (44.7%) were Democrats, and 199 (34.1%) reported as "Independents".

Results

Using analysis of variance (ANOVA) across all three experimental conditions, and evaluating all respondents together, tests yielded ten statistically significant between-group differences. See Appendix A. Wood homes were rated as more Modern, while brick homes were rated as more Traditional. Wood was also rated as more Feminine, and brick was rated as more Masculine. Stucco homes were significantly different from the brick and wood conditions across five negative adjectives (i.e., Boring, Incompetent, Dishonest, Unpatriotic, and lower Market Value). Lastly, the wood-home condition had the highest means relative to three positive adjectives (Exciting, Socially Responsible, and highest Market Value) with high levels of statistical significance. Recall that Mercurio and Aiken (2022) deemed adjectives such as Traditional, Conservative, Fiscally Responsible, and Rugged as Republican; while Sophisticated, Exciting, and Socially Responsible are traits associated with the Democratic party. Thus, latent measures of political trait-adjectives did appear within this foundational study of the built environment.

After isolating respondents by their identified political parties, significant adjective differences were observed. See Tables 1 and 2. First, within the self-identified Republican group, brick homes were perceived as being Masculine, Democrat, and Rugged. Wood homes were found to be Competent and Republican. Stucco was most highly associated with the trait-adjectives of Feminine, Incompetent, and Fragile. Second, focusing analyses on Democrat respondents, results showed nine significant differences by exterior conditions. Brick homes were rated as most Traditional, Masculine, and Rugged. Wood was judged as Modern, Exciting, Feminine, Sophisticated, Competent, Fiscally responsible, Liberal, (prior research would label these as mostly Democratic traits) and projected to be sold at the highest Market Value (out of the three homes). Stucco was associated with being Boring, Simple, Incompetent, Fragile,Conservative, and was projected to be sold at the lowest Market Value.

Additionally, with regards to political partisanship and demographics, ANOVA and t-tests yielded other meaningful results. Summed partisanship scores revealed that women indicated higher levels of political partisanship (M_w=15.6; M_m=13.2; t=4.71; p<.01). Moreover, older respondents as well as highly educated respondents were more highly partisan (F=6.13; p<.01; F=3.8; p<.02 respectively). A

median-split of each party was then used to group the more highly-identified, partisan respondents from the less politically connected. The highly-partisan Republican respondents rated the brick house as more Democratic ($F=5.7$; $p<.01$). The highly-partisan Democrat respondents indicated that wood houses were significantly more Exciting, Feminine, and Liberal (F-values ranged from 3.9 to 9.6; $p<.02$).

Table 1

Significant Adjectives Ratings by Exterior; ANOVA (Republican Respondents)

Adjective	Exterior (n)‡	Mean (S)*	F-statistic	P-value
Feminine – Masculine	Brick (31)	5.97 (1.5)	2.85	.062
	Stucco (35)	5.26 (1.4)		
	Wood (51)	5.27 (1.3)		
Competent – Incompetent	Brick (32)	2.94 (1.7)	2.78	.066
	Stucco (36)	3.31 (2.1)		
	Wood (51)	2.35 (1.8)		
Republican – Democrat	Brick (32)	5.03 (1.3)	3.11	.048
	Stucco (35)	4.63 (1.1)		
	Wood (51)	4.16 (1.9)		
Rugged – Fragile	Brick (32)	4.06 (1.7)	2.72	.070
	Stucco (35)	5.06 (1.4)		
	Wood (52)	4.52 (1.9)		

‡ Subjects exposed to only one of three exterior conditions (Brick, Stucco, or Wood rendering)
* 10-point semantic differential ratings

Table 2

Significant Adjectives Ratings by Exterior; ANOVA (Democrat Respondents)

Adjective	Exterior (n)‡	Mean (S)*	F-statistic	P-value
Traditional – Modern	Brick (94)	3.34 (2.0)	5.97	.003
	Stucco (82)	4.01 (2.4)		
	Wood (84)	4.54 (2.5)		
Boring – Exciting	Brick (93)	3.34 (2.1)	5.83	.003
	Stucco (80)	3.03 (2.1)		
	Wood (83)	4.18 (2.5)		
Feminine – Masculine	Brick (87)	5.87 (1.4)	11.59	<.001
	Stucco (80)	5.14 (1.1)		
	Wood (83)	4.96 (1.4)		
Simple – Sophisticated	Brick (93)	2.70 (1.7)	2.71	.069
	Stucco (83)	2.49 (1.7)		
	Wood (84)	3.15 (2.2)		
Competent – Incompetent	Brick (91)	3.18 (1.8)	2.91	.057

	Stucco (79)	3.56 (1.9)		
	Wood (82)	2.89 (1.6)		
Fiscally Responsible	Brick (91)	6.09 (1.5)	2.60	.076
	Stucco (79)	6.00 (1.8)		
	Wood (82)	6.54 (1.5)		
Rugged – Fragile	Brick (89)	3.84 (1.5)	7.75	<.001
	Stucco (81)	4.73 (1.7)		
	Wood (82)	4.68 (1.8)		
Liberal – Conservative	Brick (93)	5.66 (1.5)	3.60	.029
	Stucco (81)	5.85 (1.5)		
	Wood (83)	5.24 (1.5)		
Sold Below Mkt. – Above Mkt.	Brick (94)	6.00 (1.7)	3.09	.047
	Stucco (82)	5.48 (1.7)		
	Wood (83)	6.04 (1.5)		

‡ Subjects exposed to only one of three conditions (Brick, Stucco, or Wood rendering)
* 10-point semantic differential ratings

Discussion

When analyzing results from all respondents in aggregate (Appendix A), the exterior material did not appear to have a direct, easily interpreted, significant party affiliation. There were no explicit differences in means of the rating of "Republican" vs. "Democrat". However, ten significant differences revealed latent differences in people's perceptions of variables deemed political by prior works. Moreover, results did indicate the exterior materials of a home were interpreted as having a political affiliation when grouped according to respondents' party. Democrats interpreted painted wood exterior as Liberal while Republicans interpreted wood exterior as Republican (Table 1 & Table 2). This interesting finding shows that both Democrats and Republicans identify copartisan adjectives to the home with wood siding.

Interestingly, some adjectives were found to be in conflict with respondents' self-image. Republicans associated brick with the trait-adjective Democrat, while Democrats associated Conservative with stucco. Considering that past research has found that Democrats are more likely to punish products that convey different views (Mercurio & Aiken, 2022), this could be a contributing factor in Democrats relegating Republicans to the least-valued stucco homes while Republicans associated Democrats with the middle-valued brick homes. These findings of respondents and their opposing perceptions of building materials are a viable area for further study.

Homes with stucco exteriors were consistently scored unfavorably. Stucco had several lower ratings across all groupings. All three conditions found statistically significant results that stucco was associated with the traits Incompetent, Fragile, and selling for the Lowest Value. Both Democrats and all respondents associated stucco with being Boring. We recognize these findings may be subject to regional preferences for building materials. However, this exploratory study did not control for respondent location. Future research would benefit greatly from including region and predominant construction materials.

The primary goal of this study was to investigate whether design elements of a building would be interpreted as having a political affiliation. Overall, the data suggest that painted wood-siding homes have potential to appeal to both political parties, and thus could be labeled as copartisan. AEC firms would seem to benefit from using wood siding when possible as it was most positively viewed across

all respondents. Additionally, stucco's multiple negative associations provides an additional point of consideration for AEC firms to avoid as an exterior finish material.

In conclusion, political consumerism can be measured through trait adjectives and applied to the elements of the built environment. Since consumers are assigning meaningful political associations to homes, AEC firms need to carefully and intentionally choose their building materials.

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Appendix A

Adjectives Ratings by Exterior; ANOVA (All Respondents)

Adjective	Exterior (n) ‡	Mean (S)*	F-statistic	P-value
Traditional – Modern	Brick (197)	3.42 (2.1)	9.75	<.001
	Stucco (184)	4.16 (2.5)		
	Wood (200)	4.45 (2.6)		
Boring – Exciting	Brick (196)	3.76 (2.2)	11.66	<.001
	Stucco (183)	3.30 (2.3)		
	Wood (197)	4.46 (2.6)		
Feminine – Masculine	Brick (189)	5.68 (1.6)	11.36	<.001
	Stucco (181)	5.16 (1.2)		
	Wood (193)	5.05 (1.3)		
Simple – Sophisticated	Brick (196)	2.92 (1.9)	10.03	<.001
	Stucco (186)	2.51 (1.8)		
	Wood (199)	3.44 (2.3)		
Competent – Incompetent	Brick (192)	2.94 (1.8)	8.65	<.001
	Stucco (182)	3.58 (1.9)		
	Wood (194)	2.85 (1.8)		
Honest – Dishonest	Brick (189)	3.31 (1.6)	3.85	.022
	Stucco (180)	3.73 (1.7)		
	Wood (192)	3.29 (1.8)		
Fiscally Responsible	Brick (190)	6.48 (1.6)	2.60	.075
	Stucco (180)	6.21 (1.7)		
	Wood (195)	6.60 (1.7)		
Socially Responsible	Brick (189)	5.85 (1.7)	3.88	.021
	Stucco (179)	5.48 (1.8)		
	Wood (197)	5.99 (2.0)		
Immoral – Moral	Brick (189)	6.48 (1.8)	2.42	.090
	Stucco (181)	6.04 (1.7)		
	Wood (197)	6.31 (2.1)		
Rugged – Fragile	Brick (190)	3.90 (1.6)	16.4	<.001
	Stucco (182)	4.82 (1.5)		
	Wood (196)	4.58 (1.7)		
Republican – Democrat	Brick (190)	4.59 (1.3)	.207	.813

	Stucco (179)	4.54 (1.4)		
	Wood (193)	4.63 (1.5)		
Liberal – Conservative	Brick (192)	5.42 (1.5)	1.33	.263
	Stucco (181)	5.57 (1.6)		
	Wood (194)	5.34 (1.3)		
Unpatriotic – Patriotic	Brick (188)	5.71 (1.3)	2.86	.058
	Stucco (174)	5.40 (1.1)		
	Wood (193)	5.56 (1.3)		
Sold Below Mkt. – Above Mkt.	Brick (196)	5.87 (1.5)	6.55	.002
	Stucco (186)	5.43 (1.6)		
	Wood (197)	5.94 (1.5)		

‡ Subjects exposed to only one of three conditions (Brick, Stucco, or Wood rendering)
* 10-point semantic differential ratings