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How Personality Shapes Social Media Engagement and Green Purchase Intention in Digital Service Platforms

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Abstract. This research aims to investigate the effects of the Big Five personality traits on social media engagement and environmentally friendly behavior. Additionally, it also explores the connection between social media and green purchase behavior. Based on a sample of 453 participants, this study employs partial least squares structural equation modeling (PLS-SEM) to test the proposed framework. This research indicates the five personality traits influencing social media activity and green purchase behavior are conscientiousness, extraversion, openness, agreeableness and neuroticism. Furthermore, social media positively influences green purchase behavior. The finding extends the contribution to the personality traits theory by highlighting these traits' important role in green purchase behaviors. In order to successfully influence green consumer purchase behavior and achieve business growth, companies must deeply understand what motivates consumers to engage directly or indirectly in green products.

Keywords: Personal traits, Social media, Green behavior, Structural equation modeling

1. Introduction

Environmental degradation has emerged as a major global issue in recent years. The growing population, particularly in developing countries, has resulted in increased manufacturing and consumption, leading to substantial environmental challenges. Economic growth has further contributed to environmental pollution, worsening the situation. This has increased awareness of the need for sustainable practices, including sustainable consumption and production, to support the long-term health of the planet and human well-being (Hai & Mai, 2013). Green consumerism has emerged as a crucial aspect of environmental sustainability in recent years (Kong et al., 2014).

Sustainable lifestyles and green consumption practices involve consistently using environmentally-friendly products that are safe for human health and the natural ecosystem. (Thong et al., 2017). Global consumer surveys indicate a growing preference for eco-friendly products, with many consumers demonstrating a willingness to shift toward more sustainable brands as their awareness of environmental issues increases. Numerous studies have recognized the potential of the green consumer market, prompting companies to start producing environmentally friendly products (Eltayeb et al., 2011). Nonetheless, sustainable practices remain relatively new in developing countries like Vietnam. Experts argue that sustainability is even more urgent for rapidly developing countries like Vietnam due to the challenges posed by urbanization, strong economic and population growth, and increasing waste management and pollution (Vergragt et al., 2014).

Prior studies demonstrate that increased social and environmental awareness promotes pro-social and pro-environmental behaviors among consumers, including buying green products (Kim, 2011; Shahnaei, 2012). However, consumers from countries with high environmental concerns may have different perspectives and purchasing behaviors compared to consumers in countries with lower environmental concerns. Despite its growth, green purchasing remains an emerging trend driven by environmental concerns in many countries, including Vietnam (Hai & Mai, 2013). Prior research has examined green consumption from multiple perspectives, including attitudes, values, eco-labeling, and advertising effects, with particular attention to younger consumers (Smith, 2010; Gustavsen et al., 2020).

Moreover, social media (SM) should be conceptualized as an integral component of an informatics-driven service environment rather than merely a communication channel. Beyond facilitating information exchange, SM platforms function as complex socio-technical systems that continuously generate, process, and analyze large volumes of user-generated data, thereby enabling real-time interaction, personalization, and adaptive service responses (Kietzmann et al., 2011; Yoo et al., 2012). Through mechanisms such as algorithmic curation, data analytics, and interactive affordances, SM embeds information processing directly into service delivery, shaping customer experiences, expectations, and behaviors throughout the service journey (Ng & Wakenshaw, 2017). From this perspective, SM operates as a dynamic service infrastructure that supports value co-creation and relational engagement, aligning more closely with service informatics and service systems logic than with traditional communication-based interpretations (Vargo & Lusch, 2016). Prior research has demonstrated that SM influences attitudes and behavioral intentions toward eco-friendly products by facilitating information sharing, social influence, and the dissemination of normative cues (Zhao et al., 2019). However, despite these advances, empirical research that jointly integrates personality traits, SM engagement, and green purchasing intention remains fragmented and underdeveloped.

Although existing studies have linked Big Five personality traits to green consumption and separately examined the influence of personality on SM use, these research streams have largely evolved in isolation. More importantly, prior work has predominantly emphasized direct relationships, offering limited insight into the mechanisms through which personality traits are translated into green purchasing intentions within

digital contexts. Addressing this gap, the present study conceptualizes SM as an informatics-enabled service environment through which personality traits shape information processing, service interaction, and value co-creation. By positioning SM engagement as a mediating mechanism, the study moves beyond identifying associations to explain how and why personality traits influence green purchasing intention through interaction with digital service platforms, particularly in a developing-country context.

2. Literature review

2.1 Personality traits

Neuroticism, which is also referred to as emotional instability, has been linked to personality traits such as moodiness, anxiety, and tenseness, as noted by Awais et al. (2014). This personality factor is characterized by an individual's level of emotional instability, aggressiveness, anxiety, and anger (McCrae & Costa, 1985). Personality traits can be arranged hierarchically, from narrower lower-order characteristics to broader higher-order dimensions. High levels of this trait are associated with greater intensity of negative emotional experiences, including depression, anxiety, anger, guilt, and shame.

Extraversion is a personality trait marked by qualities such as talkativeness, energy, and assertiveness (Awais et al., 2014). It indicates an individual's inclination to be social, outgoing, and helpful to others, as well as their tendency to take charge of situations and engage in energetic behavior (McCrae et al., 1985). High levels of extraversion are associated with greater positivity and enthusiasm, which are often reflected in more favorable environmental attitudes (Markowitz et al., 2012).

Openness to Experience is a personality factor that includes traits such as diverse interests, insight, and imagination (Awais et al., 2014). It reflects an individual's ability to appreciate unconventional and diverse experiences. However, Openness is the least understood of the five traits, possibly because the links between these characteristics are not always apparent (McCrae, 2004). High Openness to Experience people are typically characterized as being open-minded, creative, intelligent, sensitive to art, and curious (McCrae et al., 1985).

Agreeableness is a personality trait that is characterized by qualities such as sympathy, kindness, and affection (Awais et al., 2014). It refers to an individual's tendency to prioritize social harmony, cooperation, and generosity over personal gain (McCrae & John, 1992). Hirsh and Dolderman (2007) note that agreeable individuals tend to have higher levels of empathy, which may contribute to their greater environmentalism, as they are more likely to be concerned about the well-being of others. Agreeableness refers to a wide spectrum of personal characteristics that determine how an individual interacts with others.

Conscientiousness is a personality dimension that includes attributes such as being methodical, meticulous, and diligent (Awais et al., 2014). It is characterized by a strong sense of duty, self-control, compliance with rules, and a focus on future goals (McCrae & Costa, 1985). However, the relationship between conscientiousness and pro-environmental behavior remains unclear due to mixed research findings.

2.2. Social Media

Social media was defined as content created and shared by consumers online, which includes information about products, services, brands, personalities, and various issues (Blackshaw et al., 2004). Erkan and Evans (2016) define SM refers to online applications and platforms that enable user interaction, collaboration, and the sharing of user-generated content. SM can manifest in various forms, such as Twitter, blogs, and Facebook, connecting users with shared interests. This characteristic makes SM a valuable tool for advertisers, who can target specific lifestyle groups through these platforms (Lee et al., 2018).

The widespread adoption of social networking has profoundly impacted modern society, making it standard practice for businesses to engage with customers via SM. These platforms provide valuable opportunities for both consumers and businesses to establish positive connections and enhance visibility.

SM functions as a space for expressing opinions, interests, and shaping one's identity (Pan et al., 2017). Additionally, the global proliferation of SM has helped bridge the gap between businesses and their customers (Crammond et al., 2018). Numerous studies highlight the significance of SM in predicting users' opinions and attitudes, allowing businesses to market their products to a broad audience. Through SM, users can participate in diverse forms of communication and share their thoughts, opinions, and ideas about products or services (Kim, 2018). By carefully analyzing the vast amounts of user-generated content on SM, businesses can extract valuable insights and identify marketable ideas and trends that can inform their marketing strategies.

2.3 Hypotheses development

Individuals who possess the agreeable personality type are characterized by their willingness to take into account the feelings and desires of others (Caspi et al., 2005). Research suggests that people's behavior on SM platforms and in face-to-face interactions is similar, indicating that People exhibiting high agreeableness prefer direct communication and tend to display prosocial behavior (Butt & Phillips, 2008). Agreeable individuals are typically kind, courteous, friendly, and warm-hearted, and maintain long-term relationships within their social circles (Ross et al., 2009). In socially embedded digital environments, agreeable individuals are therefore expected to engage with SM primarily for relationship maintenance and socially meaningful interaction rather than entertainment-oriented use.

Sun et al. (2018) demonstrated that people exhibiting high agreeableness are generally more kind and considerate towards others and the environment, showing a positive relationship between this trait and the intention to buy environmentally friendly products. Kvasova (2015) also identified a positive link between pro-environmental behaviour and agreeableness, including eco-friendly tourism. In general, compassionate and altruistic personality traits are positively associated with environmentally conscious behaviors and green product purchasing. In emerging digital markets, sustainability norms are often reinforced through peer interaction and online communities on SM, which may further strengthen the influence of agreeableness on green purchase behavior. Taken together, agreeableness is expected to influence SM usage and green purchase behavior through complementary social and normative mechanisms. Thus, we propose:

Hypothesis 1a: Agreeableness positively influences social media

Hypothesis 1b: Agreeableness positively influences green purchase behavior

High openness to new experiences people tend to be inclined to explore novel approaches in life. They are typically inquisitive and imaginative, curious about abstract ideas, and are more accepting of unconventional or unfamiliar things (McCrae & Terracciano, 2005; Ross et al., 2009). Previous studies have shown a positive link between openness to new experiences and SM usage, with people exhibiting high openness tending to use a broader range of features on SM platforms (Hughes et al., 2012). Unlike socially oriented traits, openness is primarily associated with exploratory and information-seeking behavior, which aligns with the role of SM as a key gateway for discovering new ideas and products in emerging digital markets.

Additionally, previous research found a positive relationship between openness to experience and pro-environmental behavior, including green consumption, due to a heightened interest in exploring and appreciating the natural world (Milfont et al. 2012; Sun et al., 2018). In this sense, SM not only facilitates exploration but also increases exposure to innovative sustainability-related products. Thus, we propose:

Hypothesis 2a: Openness to experience positively influences social media

Hypothesis 2b: Openness to experience positively influences green purchase behavior

People with high conscientiousness are generally focused on productivity and demonstrate a strong work ethic (Chemorro-Premuzic, 2013). They may perceive SM as a potential distraction and therefore might avoid it to prevent procrastination (Butt & Phillips, 2008). Conscientious individuals are typically

known for their sense of responsibility, integrity and organization (Hughes et al., 2012). Similarly, those with high levels of agreeableness may avoid social media, viewing it as a distraction from more meaningful tasks (Butt et al., 2008). While Ryan et al. (2011) found a negative relationship between social media use and conscientiousness, Özgüven and Mucan (2013) identified a positive one. These mixed findings suggest that the effect of conscientiousness on SM usage depends on whether SM is perceived as a distraction or as an instrumental platform supporting goal-oriented decision-making.

Hirsh et al. (2007) identified a notable negative correlation between conscientiousness and environmentalism. Conversely, Markowitz et al. (2012) observed a positive, though statistically insignificant, relationship between conscientiousness and environmental activities. On the other hand, previous research found a significant positive correlation between conscientiousness and various aspects of environmentalism (Sun et al., 2018). Milfont et al. (2012) proposed that high conscientiousness people are more likely to be future-oriented and mindful of the long-term environmental impact of their actions. Thus, we propose:

Hypothesis 3a: Conscientiousness positively influences social media

Hypothesis 3b: Conscientiousness positively influences green purchase behavior

Individuals with high extraversion tend to have a sociable and adventurous personality and enjoy exploring new experiences (Carducci, 2009). According to Wehrli (2008), extraverts are driven to use SM platforms because of their positive association with communication. Correa et al. (2010) have found a positive relationship between extraversion and SM, with extraverted individuals having more SM interactions. However, introverted individuals may use SM as a means to express their true selves (Hamburger & Ben-Artizi, 2000). Costa and McCrae (1980) describe extraversion as being associated with positive emotions such as sociability, energy, and enthusiasm, while introversion is linked with shyness and withdrawal. In SM environments that emphasize interaction intensity and social visibility, extraverted individuals are particularly likely to engage actively and frequently.

Individuals with high extraversion are typically sociable and adventurous, enjoying the exploration of new experiences (Carducci, 2009). Wehrli (2008) suggests that extraverts are motivated to use SM platforms due to their positive connection with communication. Prior research identified a positive relationship between extraversion and SM, with extraverted individuals engaging in more interactions on these platforms (Correa et al., 2010). Conversely, introverted individuals might use SM as a way to express their true selves (Hamburger & Ben-Artizi, 2000). Extraverted individuals often prioritize self-expression, subjective well-being, and environmental concern. Thus, we propose:

Hypothesis 4a: Extraversion positively influences social media

Hypothesis 4b: Extraversion positively influences green purchase behavior

Courtesy Individuals scoring high in neuroticism often exhibit a strong inclination in be online and use social networking sites (SNS) due to their desire to connect with others and alleviate feelings of loneliness, resulting in substantial time spent online (Butt & Phillips, 2008). Previous research found that neuroticism is positively linked to the risk of internet addiction, with emotionally unstable individuals more likely to spend excessive time online, leading to negative outcomes (Yao et al., 2014). Those with low neuroticism generally have better emotional control, whereas high neuroticism people tend to be more sensitive, nervous, and prone to worry, reflecting poorer emotional regulation (McCrae et al., 1987). While earlier research indicated a negative relationship between neuroticism and internet usage (Tuten et al., 2001), the increasing popularity of SM has revealed a positive association between neuroticism and SM use to combat loneliness (Hojat et al., 1987). Thus, neuroticism is expected to influence SM usage mainly through an affect-regulation mechanism rather than social or exploratory motivations.

According to Kvasova (2015), neuroticism positively affects eco-friendly behavior among tourists. Conversely, Shahjehan et al. (2012) indicate a positive link between neuroticism and impulse buying

behavior. Individuals experiencing anxiety or emotional distress may resort to impulsive purchasing to mitigate their negative emotions, which might include buying eco-friendly products. Thus, we propose

Hypothesis 5a: Neuroticism positively influences social media

Hypothesis 5b: Neuroticism positively influences green purchase behavior

The rise of SM has profoundly transformed the interaction between companies and consumers regarding both eco-friendly and non-eco-friendly products, providing a more interactive and collaborative shopping experience (Wang et al., 2012). This is especially important as millennials often prefer eco-friendly businesses with a strong online presence (Smith et al., 2012). SM is a vital resource for consumers to access and evaluate product information (Heinonen, 2011), making a company's digital footprint a crucial factor in influencing purchasing decisions. SM interactions can impact purchasing decisions both directly, by fostering conformity with peer groups, and indirectly, by increasing the amount of time consumers spend researching products (Wang et al., 2012). In emerging digital markets, SM increasingly integrates information search, peer influence, and interaction into routine consumption decisions.

Existing literature highlights a positive link between environmental knowledge and behaviors. Individuals who gain environmental knowledge from various sources are more inclined to cultivate positive attitudes toward the environment (Khare et al., 2017). Additionally, young consumers who actively engage with SM are becoming increasingly aware of environmental issues and are adopting sustainable practices and green lifestyles (Karavasilis et al., 2015). Consumers are prepared to pay a premium for sustainably produced products. (Namkung et al., 2017), and well-reasoned descriptive advertisements enhance the intention to purchase eco-friendly items (Zanon & Teichmann, 2016). However, the relationship between SM activities and green purchase intention has not been extensively studied. Hence, we propose:

Hypothesis 6: Social media positively influences green purchase behavior.

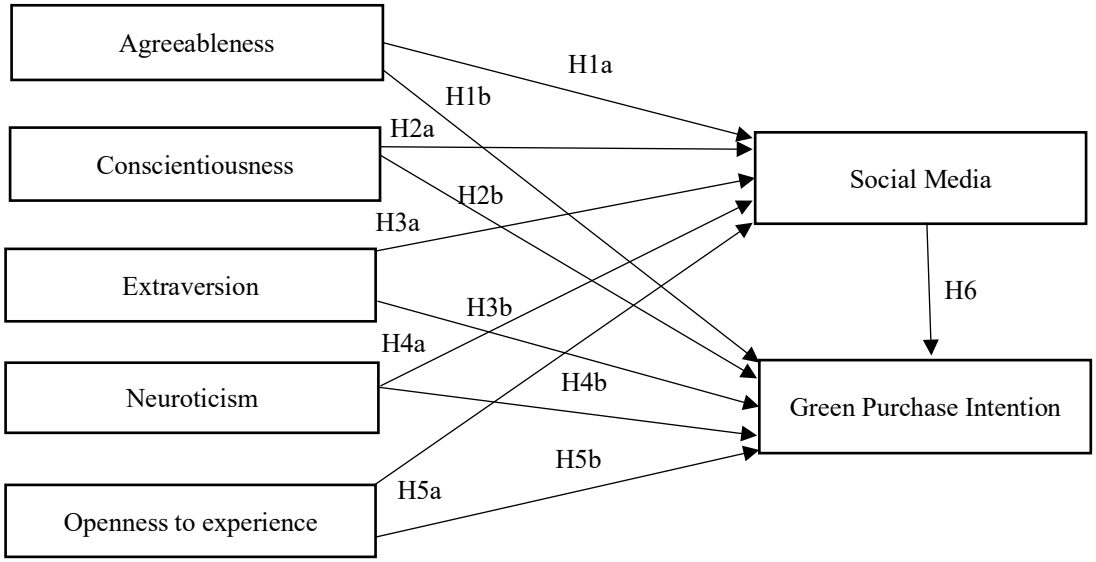

Fig.1: Propose framework

3. Methodology

3.1. Data collection and sampling

The questionnaire was specifically designed for individuals with prior experience in green purchasing. A pilot survey was implemented to refine and enhance the measurement scales. The final survey was distributed to target respondents by using a convenience sampling approach, with data collected through an

online survey. Respondents were invited to participate via a link included in the invitation. The study employed convenience sampling, focusing primarily on young and highly educated consumers who represent the most active users of SM platforms and information-rich digital service environments (Bolton et al., 2013). We received a total of 453 completed responses from participants who have engaged in green purchasing at least once in our survey. The sample includes 45.9% males and 54.1% females. Most respondents (89%) are between 18 and 30 years old, and approximately 68% hold a graduate degree. This demographic group is particularly relevant for examining SM–driven green consumption, as younger and more educated consumers are more likely to engage with sustainability-related content, process online information, and translate digital engagement into purchasing intentions. Additionally, respondents' experience with green shopping varies: 28.9% have four years of experience, while 43.5% have more than four years.

3.2. Measurement

Measurement items for this research were developed using multiple scales from prior studies. Items of extraversion and agreeableness were used from Judge et al. (2002) scale. Neuroticism, Conscientiousness, and Openness to Experience were based on John et al. (1999) scale. The items for SM were adapted from Kim and Ko (2012) scale. Finally, the items for green purchasing intention were based on Ding et al. (2017) and Wang et al. (2018) scales. A 5-point Likert scale was used to measure all items.

3.3. Common method bias

Since the researchers gathered data from multiple participant groups at the same time, there is a potential for common method bias (CMB) in this study (Podsakoff et al., 2003). To assess this, Harman's single-factor test was conducted using SPSS, which indicated that the first factor accounted for only 49.007% (<50%) of the total variance. It suggests that CMB may not significantly impact the study outcomes. Further, in line with the guidelines proposed by Kock and Berbekova. (2021), this study examined total collinearity among all constructs to assess the presence of CMB. Table 2 reports the results for each construct based on the shared variables and their corresponding variance inflation factor (VIF) values. As all VIF values are below the threshold of 3.3, the findings indicate that common method bias is unlikely to be a concern in the single-source data.

4. Analysis and results

PLS-SEM was employed to examine the relationships among the latent variables. This method is well suited for the analysis of complex research models and imposes relatively few assumptions regarding sample size, measurement scales, and residual distributions (Chin et al., 2003). Data was analyzed by SPSS and SmartPLS version 3.0.

4.1. Measurement model

Table 1 shows that the α-values are above the 0.7 threshold and all factor loadings for the constructs surpass the acceptable cutoff of 0.50. The CR exceeds the 0.7 cutoff, and the AVEs are higher than 0.5 for all constructs. These results indicate that the convergent validity was satisfactory. (Hair et al., 2009 & Nunnally, 1978). Table 2 indicates that the square roots of all the AVEs are greater than the correlations between the variables. This implies that the measurement exhibits strong discriminant validity (Fornell & Larcker, 1981).

Table 1: Measurement assessment (n=453)

Construct and scale items	α	Estimate[a]	CR	AVE
Agreeableness	0.845		0.906	0.763
I have empathy for others		0.878		
I understand and share others' emotions		0.897		
I am emotionally sensitive		0.846		
Conscientiousness	0.923		0.951	0.866
I am committed to completing my tasks to the best of my ability.		0.937		
I will fulfill my commitments when I make them.		0.932		
Sometimes I may not be dependable or trustworthy.		0.922		
Extraversion	0.904		0.940	0.839
I feel at ease when I'm with others.		0.930		
I initiate conversations in most situations		0.910		
I am willing to socialize with different people at parties		0.908		
Neuroticism	0.849		0.908	0.767
I tend to worry easily		0.888		
I am easily disturbed by things		0.863		
I am easily upset		0.876		
Openness to experience	0.796		0.880	0.710
I experience a sense of awe and wonder when surrounded by nature and art		0.761		
I also open to trying new and exotic green product.		0.881		
I have a willingness to explore new experiences.		0.881		
Social Media	0.940		0.957	0.848
I find SM content related to green products interesting		0.925		
I feel comfortable sharing my opinion about green products on SM		0.909		
Using social media to seek information about green products is becoming a popular trend		0.916		
I enjoy sharing information about green products with my friends on SM		0.917		
Purchasing Intention	0.937		0.955	0.840
I intend to buy green products in the future		0.915		
I am open to purchasing green products		0.918		
I have made the decision to start buying green products		0.928		
I am willing to pay a premium for green products		0.923		

Notes: a Standardized factor loading

Table 2: Discriminant validity

Variables	AG	CO	EX	NE	OE	PI	SM	VIF
AG.Agreeableness	**0.874**							2.727
CO.Conscientiousness	0.363	**0.930**						2.474
EX.Extraversion	0.372	0.609	**0.916**					2.715
NE.Neuroticism	0.354	0.459	0.512	**0.876**				2.707
OE.Openness to experience	0.293	0.361	0.395	0.451	**0.843**			2.669
PI.Purchasing Intention	0.446	0.680	0.630	0.572	0.515	**0.921**		2.502
SM.Social Media	0.421	0.644	0.643	0.580	0.504	0.692	**0.917**	2.664

Note: The bold are the square roots of the AVE values

4.2. Structural model for hypothesis testing

As shown in Figure 2, the structural model exhibits strong explanatory power, accounting for 60.1% of the variance in social media (SM) engagement and 64.2% of the variance in green purchasing intention. These results indicate that the proposed framework effectively captures key drivers of both digital engagement and sustainable consumption behavior. The substantial variance explained in SM engagement suggests a strong alignment between individual personality traits and the affordances of SM as an informatics-enabled service environment, wherein user dispositions systematically shape patterns of information seeking, interaction, and content engagement.

Similarly, the high proportion of explained variance in green purchasing intention reflects the combined influence of individual psychological characteristics and service-mediated information processing. In this context, SM functions as a data-driven service interface that integrates information provision, social validation, and normative cues into the consumption process, thereby facilitating the translation of individual predispositions into purchase intentions. Collectively, these findings underscore the role of SM as an information-intensive service system that amplifies individual-level drivers, resulting in substantial explanatory power across both digital engagement and consumption outcomes.

The structural model results indicate strong empirical support for the proposed framework, with all hypothesized relationships being statistically significant at $p < 0.001$, thereby confirming all hypotheses. Among the personality traits, conscientiousness emerges as the most influential predictor of SM ($\beta = 0.299$), followed by extraversion ($\beta = 0.253$), neuroticism ($\beta = 0.199$), openness to experience ($\beta = 0.179$), and agreeableness ($\beta = 0.095$). This pattern suggests that individuals who are disciplined, socially oriented, emotionally responsive, and open to new experiences are more likely to actively engage with SM platforms, while agreeableness plays a comparatively smaller role.

A similar pattern is observed for green purchasing intention, where conscientiousness again demonstrates the strongest influence ($\beta = 0.308$), highlighting the importance of responsibility, self-regulation, and goal-oriented behavior in environmentally conscious consumption. This is followed by openness to experience ($\beta = 0.154$), extraversion ($\beta = 0.145$), neuroticism ($\beta = 0.133$), and agreeableness ($\beta = 0.102$), indicating that both cognitive openness and social–emotional traits contribute meaningfully to green purchase intentions, albeit to varying degrees.

Table 3: Structural model results

	β	*T*-statistics	f^2	*p*-values
Agreeableness -> Green Purchasing Intention	0.102	2.760	0.023	0.006
Agreeableness -> SM	0.095	2.809	0.018	0.005
Conscientiousness -> Green Purchasing Intention	0.308	7.249	0.136	0.000
Conscientiousness -> SM	0.299	6.049	0.130	0.000
Extraversion -> Green Purchasing Intention	0.145	3.006	0.029	0.003
Extraversion -> SM	0.253	5.449	0.087	0.000
Neuroticism -> Green Purchasing Intention	0.133	3.578	0.029	0.000
Neuroticism -> SM	0.199	5.063	0.063	0.000
Openness to experience -> Green Purchasing Intention	0.154	4.019	0.047	0.000
Openness to experience -> SM	0.179	4.526	0.060	0.000
SM -> Green Purchasing Intention	0.203	4.066	0.046	0.000

Importantly, SM exerts a significant positive effect on green purchasing intention (β = 0.195), underscoring its central role as a mediating mechanism through which personality traits are translated into pro-environmental behavioral intentions. Taken together, these findings confirm the theoretical assumptions of the model and demonstrate that personality-driven engagement with SM, as an informatics-enabled service environment, plays a critical role in shaping green purchasing intentions.

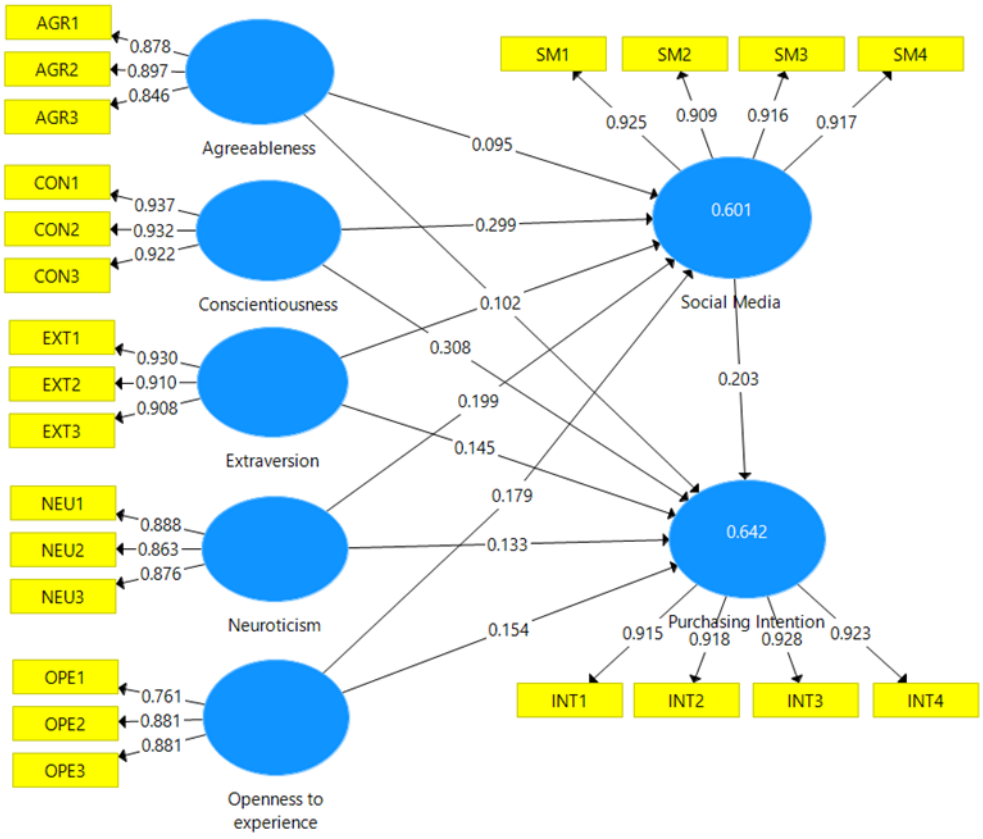

Fig.2: Results of the path analysis

The study used Stone-Geisser's Q^2 index to measure the predictive power of the model. Table 4 show that Q^2 values for the key constructs— SM and purchase intention—are higher than zero, suggesting that the model exhibits satisfactory predictive relevance (Geisser, 1974; Stone, 1974). We also used standardized mean square residuals (SRMR) to assess the model's fit. In this study, the SRMR value was 0.039 which falls below 0.08, indicating that the model has a good fit. (Hu & Bentler, 1999).

Table 4: Stone-Geisser's Q 2 statistic value.

	SSO	SSE	Q^2 (=1-SSE/SSO)
Agreeableness	1359.000	1359.000	
Conscientiousness	1359.000	1359.000	
Extraversion	1359.000	1359.000	
Neuroticism	1359.000	1359.000	
Openness to experience	1359.000	1359.000	
Purchasing Intention	1812.000	837.436	0.538
Social Media	1812.000	909.041	0.498

5. Conclusion

5.1 Discussion

Although prior research has widely recognized the growth potential of the green consumer market, this study advances the literature by demonstrating that the five core personality traits play a significant role in explaining green purchasing intention within a SM–enabled service environment. In accordance with the study's objectives, a conceptual research model was developed to examine how personality traits shape both SM engagement and green purchasing intention. Rather than conceptualizing SM as a passive communication channel, the findings position it as an informatics-driven service platform through which individual traits influence information processing, interaction patterns, and value co-creation related to green consumption. Consistent with the proposed hypotheses, the results confirm that personality traits affect green purchasing intention through distinct SM-mediated engagement mechanisms.

With respect to conscientiousness, the results indicate that it exerts the strongest positive effect on green purchasing intention. Conscientious consumers, characterized by thoroughness, self-discipline, and a planful orientation, are more likely to emphasize future-oriented and long-term outcomes, including environmental sustainability. This finding is consistent with Milfont et al. (2012), who identified conscientiousness as a key predictor of green purchasing behavior. Extending prior research, the present study further suggests that conscientious individuals are particularly effective at leveraging SM as an information-intensive service environment. Although highly conscientious individuals may sometimes limit excessive SM use (Ryan & Xenos, 2011), conscientiousness is positively associated with cooperative behavior (LePine & Dyne, 2001), which facilitates more purposeful engagement with sustainability-related information, peer interactions, and service exchanges on SM platforms. Regarding openness to experience, the findings are consistent with Hughes et al. (2012), indicating that individuals high in openness are more inclined to explore the diverse functionalities offered by SM platforms. Consumers characterized by curiosity and a preference for novelty are more receptive to new ideas, including sustainable products and practices. Within an informatics-driven service environment, SM facilitates ongoing discovery through algorithmic content curation and interactive affordances, thereby enabling individuals high in openness to experiment with green alternatives and reinforce pro-environmental consumption behaviors (Sun et al., 2018). Generally, these two dimensions are related to information and goal-oriented processing. For conscientious individuals, social media acts as an instrumental tool for purposeful, goal-oriented decision-

making regarding green products. For those high in openness, SM facilitates the discovery of novel ideas and innovative sustainable products through exploratory information-seeking.

Regarding extraversion, the findings reveal a significant positive relationship with green purchasing intention. Extraverted individuals are inherently oriented toward social interaction and stimulation, which increases their engagement with the interactive affordances of social media (SM). Consistent with prior research (Correa et al., 2010; Markowitz et al., 2012), extraversion enhances exposure to peer-generated content and prevailing social norms. From an informatics-driven service perspective, SM further amplifies these effects by embedding social influence, feedback mechanisms, and relational interactions into the consumption process, thereby facilitating the translation of socially driven engagement into green purchasing intention. With respect to agreeableness, the findings are consistent with Sun et al. (2018), indicating that individuals characterized by kindness and empathy are more inclined to consider environmental concerns and engage in eco-friendly purchasing. The cooperative and prosocial orientation of agreeable consumers facilitates interpersonal interaction and relationship building with others. As an informatics-enabled service platform, SM amplifies these tendencies by supporting collaborative communication, shared values, and collective sense-making around sustainability, although the relative influence of agreeableness is weaker than that of other personality traits. Because extraversion and agreeableness represent social validation and normative cues, SM embeds social influence and peer-generated content into the consumption process. Extraverts use the platform's interactive features to engage with social norms, while agreeable individuals use SM for collaborative communication and relationship maintenance, reinforcing shared environmental values.

In relation to neuroticism, the findings indicate that emotionally sensitive individuals may engage more intensively with SM as a means of managing anxiety and uncertainty, particularly through socially oriented interactions. While this result contrasts with Tuten et al. (2001), it is consistent with Kvasova (2015), who reported a positive association between neuroticism and eco-friendly behavior. Interpreted through a service informatics lens, SM provides affect-regulation and reassurance functions by integrating informational cues, social validation, and community support into the service experience, which may indirectly foster green purchasing intention among individuals high in neuroticism.

With respect to affect regulation and reasssurance as agreeableness, the findings are consistent with Sun et al. (2018), indicating that individuals characterized by kindness and empathy are more inclined to consider environmental concerns and engage in eco-friendly purchasing. The cooperative and prosocial orientation of agreeable consumers facilitates interpersonal interaction and relationship building with others. As an informatics-enabled service platform, SM amplifies these tendencies by supporting collaborative communication, shared values, and collective sense-making around sustainability, although the relative influence of agreeableness is weaker than that of other personality traits. Sequentially, for emotionally sensitive individuals, social media provides a bridge by offering social validation and reassurance. These users may engage with green content on SM as a way to manage anxiety or seek community support, which indirectly fosters green purchasing intentions.

Overall, while previous studies have examined the relationship between personality traits and green consumption, this study advances existing knowledge by demonstrating how personality traits operate through engagement with SM conceptualized as an informatics-driven service environment. The findings indicate that green purchasing intention is shaped not only by individual dispositions but also by the ways in which digital service platform’s structure information flows, interactions, and value co-creation processes. Collectively, these results underscore the context-dependent nature of personality effects on green purchasing intention and highlight the evolving role of SM in shaping sustainable consumption within emerging digital markets.

5.2. Theoretical implications

This study integrates the Big Five personality framework with social media research to examine the mechanisms through which consumers form green purchasing intentions. By contextualizing the Big Five traits within a digital, informatics-driven service environment, the study demonstrates how individual personality characteristics operate through social media engagement to influence green consumption outcomes. The findings highlight the relevance of all five personality dimensions as meaningful antecedents of social media engagement, which in turn facilitates green purchasing intention. Notably, the results indicate that individuals high in conscientiousness are more likely to engage actively with social media and to exhibit stronger green purchasing intentions, underscoring the role of self-regulation and responsibility-oriented traits in environmentally conscious consumption.

While personality traits and consumer behavior have been explored in the context of environmental sustainability, the results have been mixed and largely confined to developed countries. This research found a significant association between personality traits, SM, and consumer green purchasing intentions. The research highlights the potential for green consumption in developing countries and contributes to the literature by incorporating SM as an effective platform for promoting consumer green purchase intention.

5.3. Managerial implications

From a managerial perspective, the findings indicate that green purchasing intention is shaped not only by environmental awareness but also by personality-driven engagement with SM conceptualized as an informatics-enabled service platform. As consumers increasingly rely on digital services to search for, evaluate, and discuss eco-friendly products, firms should move beyond generic green messaging and adopt personality-sensitive digital service strategies.

The strong influence of conscientiousness suggests that digital services should prioritize informational depth, credibility, and long-term environmental impact. Personalized content emphasizing product transparency, environmental certifications, and verifiable sustainability outcomes can be embedded within SM services to support the goal-oriented information processing of conscientious consumers.

The significant roles of extraversion and openness to experience highlight the importance of interactive and exploratory service design. Managers can leverage SM affordances-such as user-generated content, interactive campaigns, and community-based features-to stimulate engagement among socially oriented and novelty-seeking consumers, positioning green products as both ethically meaningful and experientially appealing.

Findings related to neuroticism point to the need for reassurance-oriented digital services, including clear environmental claims, consistent messaging, and responsive interactions that reduce uncertainty and foster trust. Although agreeableness exhibits a comparatively weaker effect, collective-oriented narratives that emphasize shared environmental responsibility and community impact may further reinforce green purchasing intention.

Overall, the mediating role of SM highlights the importance of viewing digital platforms as data-driven service infrastructures that enable information personalization, interaction management, and value co-creation. Integrating personality insights into digital service design, analytics, and marketing training can help firms deliver more targeted sustainability strategies aligned with how consumers engage with information and services.

5.4. Limitations and future research

Despite its contributions, this study has several limitations. Firstly, the reliance on convenience sampling and the predominance of young, highly educated respondents may introduce sampling bias and limit the external validity of the findings. Future research should employ more diverse demographic samples and

probabilistic sampling approaches to enhance the generalizability of the results and to validate the proposed mechanisms across a broader range of consumer segments. Secondly, the chosen variables in this study may only partially explain SM usage and green purchase intention. Additional factors, such as gender, age, social affiliation, or religion, should be explored in the context of environmental consumption. Thirdly, the sample was restricted to participants from Vietnam. Considering the variation in personal traits and SM behaviors across different cultures, future research should apply in other countries to improve its generalizability and enable cross-cultural comparisons.

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