



HELLENIC OPEN UNIVERSITY
SCHOOL OF SOCIAL SCIENCES

Master in Business Administration (MBA)

DISSERTATION

“Social Identity to Social Exchange: A Sequential Theory Model of Police
Social Media Marketing Influence and Citizen Citizenship
Behaviour in Urban Greece”

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Patras, June, 2026

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**“Social Identity to Social Exchange: A Sequential Theory Model of
Police Social Media Marketing Influence and Citizen Citizenship
Behaviour in Urban Greece”**

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“I am exceptionally indebted to my supervisor, Dr. George Spais, whose scholarly rigor and perceptive critiques shaped my approach to this research. His steadfast academic stewardship and high standards served as a continuous source of inspiration and intellectual growth.”

“To my family and friends, for their endless support, patience, and encouragement throughout this journey.”

Abstract

In this dissertation, Social Identity Theory and Social Exchange Theory are used to examine how Hellenic Police social media marketing activities (PSMMA) influence citizen citizenship behaviour (CCB) in urban Greece, focusing on the intervening role of brand relationship quality (BRQ). A deductive, quantitative, explanatory design was implemented, using a structured Self-Administered Questionnaire distributed online, comprising nine sections with items derived from established and validated scales. A non-probability convenience sample of adult Greek social media users aware of official police accounts in four major cities was recruited via social media, public forums, and email (N = 326). Confirmatory factor analysis supported the measurement model. Hypotheses were tested using Spearman's rho and fitted polynomial equations to assess monotonic relationships (H1–H3), mediation analysis to estimate BRQ's indirect effect (H4), and moderation analysis for education (H5) and age (H6). Multiple linear regression indicated that the overall model was statistically significant, explaining 44.3% of the variance in CCB ($R^2 = .443$). Overall, 4 of 6 hypotheses were supported. PSMMA relates positively to BRQ and CCB; BRQ relates positively to CCB; and BRQ partially mediates the PSMMA–CCB link, while both moderation hypotheses were rejected. The study extends a sequential SIT and SET mechanism to policing and highlights practical/marketing priorities centered on credible, interactive, two-way content that builds trust and satisfaction and promotes voluntary cooperation for citizen-centric public and policing services.

Keywords

Police Social Media Marketing Activities (PSMMA), Brand Relationship Quality (BRQ), Citizen Citizenship Behavior (CCB), Social Identity Theory (SIT), Social Exchange Theory (SET).

ΔΙΠΛΩΜΑΤΙΚΗ ΕΡΓΑΣΙΑ

«Από την Κοινωνική Ταυτότητα στην Κοινωνική Ανταλλαγή: Ένα
Διαδοχικό Θεωρητικό Μοντέλο της Επιρροής του Μάρκετινγκ Μέσων
Κοινωνικής Δικτύωσης της Αστυνομίας και της Συμπεριφοράς των Πολιτών
στην Αστική Ελλάδα»

Ζωή Λαζαρίδου

Περίληψη

Στην παρούσα διπλωματική εργασία, η Θεωρία της Κοινωνικής Ταυτότητας (SIT) και η Θεωρία της Κοινωνικής Ανταλλαγής (SET) χρησιμοποιούνται για να εξεταστεί πώς οι δραστηριότητες μάρκετινγκ της Ελληνικής Αστυνομίας στα μέσα κοινωνικής δικτύωσης (PSMMA) επηρεάζουν τη συμπεριφορά πολιτειότητας των πολιτών (CCB) στην αστική Ελλάδα, εστιάζοντας στον παρεμβατικό ρόλο της ποιότητας της σχέσης με τον οργανισμό (BRQ). Υιοθετήσαμε έναν παραγωγικό, ποσοτικό και επεξηγηματικό ερευνητικό σχεδιασμό, με τη χρήση δομημένου αυτο-συμπληρούμενου ερωτηματολογίου που διανεμήθηκε διαδικτυακά και αποτελούνταν από εννέα ενότητες, με ερωτήματα που προήλθαν από καθιερωμένες και επικυρωμένες κλίμακες μέτρησης. Στο πλαίσιο δειγματοληψίας διευκόλυνσης, το μη πιθανοτικό δείγμα ενήλικων Ελλήνων χρηστών των μέσων κοινωνικής δικτύωσης, οι οποίοι γνώριζαν τους επίσημους αστυνομικούς λογαριασμούς σε τέσσερις μεγάλες πόλεις, συλλέχθηκε μέσω των μέσων κοινωνικής δικτύωσης, δημόσιων διαδικτυακών φόρουμ και ηλεκτρονικού ταχυδρομείου ($N = 326$). Η επιβεβαιωτική παραγοντική ανάλυση (CFA) υποστήριξε το μοντέλο μέτρησης. Οι υποθέσεις ελέγχθηκαν με τον ρ του Spearman και προσαρμοσμένες πολυωνυμικές εξισώσεις για την αξιολόγηση μονοτονικών σχέσεων ($H1-H3$), με ανάλυση διαμεσολάβησης για την εκτίμηση της έμμεσης επίδρασης της BRQ ($H4$) και ανάλυση τροποποίησης για την εκπαίδευση ($H5$) και την ηλικία ($H6$). Η πολλαπλή γραμμική παλινδρόμηση έδειξε ότι το συνολικό μοντέλο ήταν στατιστικά σημαντικό, εξηγώντας το 44,3% της διακύμανσης της CCB. Συνολικά, υποστηρίχθηκαν 4 από τις 6 υποθέσεις. Η PSMMA σχετίζεται θετικά με την BRQ και την CCB, η BRQ σχετίζεται θετικά με την CCB και η BRQ διαμεσολαβεί μερικώς τη σχέση PSMMA–CCB, ενώ και οι δύο υποθέσεις τροποποίησης δεν υποστηρίχθηκαν. Η μελέτη επεκτείνει έναν διαδοχικό μηχανισμό SIT και SET στο πεδίο της αστυνόμευσης και αναδεικνύει πρακτικές/μάρκετινγκ προτεραιότητες που εστιάζουν σε αξιόπιστο, διαδραστικό, αμφίδρομο περιεχόμενο, το οποίο οικοδομεί εμπιστοσύνη και ικανοποίηση και προάγει την εθελοντική συνεργασία για πολιτο-κεντρικές δημόσιες και αστυνομικές υπηρεσίες.

Λέξεις – Κλειδιά

Δραστηριότητες Μάρκετινγκ της Αστυνομίας στα Μέσα Κοινωνικής Δικτύωσης (PSMMA), Ποιότητα Σχέσης με τον Οργανισμό (BRQ), Συμπεριφορά Πολιτειότητας των Πολιτών (CCB), Θεωρία Κοινωνικής Ταυτότητας (SIT), Θεωρία Κοινωνικής Ανταλλαγής (SET).

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List of Abbreviations and Acronyms

BRQ: Brand Relationship Quality
CCB: Citizen Citizenship Behaviour
CFA: Confirmatory Factor Analysis
CFI: Comparative Fit Index
CO: Content
CR: Credibility
eWOM: Electronic Word-of-Mouth
I: Interaction
PSMMA: Police Social Media Marketing Activities
R²: R-squared (Coefficient of Determination)
RMSEA: Root Mean Square Error of Approximation
SET: Social Exchange Theory
SIT: Social Identity Theory
SPSS: Statistical Package for the Social Sciences

Chapter 1 – Introduction

1.1 Research aim and research problem

As the digital age began, people and organizations began interacting online (e.g., Martin & Flew, 2022). Thus, through clicks, posts, and likes, people interact with institutions, communicate, and form opinions (Mari et al., 2022; Weeks et al., 2017).

To theoretically and empirically examine how Greek Police social media marketing activities (PSMMA) influence urban citizen citizenship behavior through the mediating mechanism of brand relationship quality, by sequentially integrating Social Identity Theory and Social Exchange Theory, while accounting for the moderating effects of educational qualification and age in the urban context. Our research intention is to examine and validate a model of police SMMA (content quality, credibility, interaction, eWOM) and citizen-police brand relationship quality (trust and satisfaction).

Inadequate citizen cooperation in crime prevention and community safety, as well as dwindling public trust in police institutions, are the two crises facing modern urban policing. Recent economic downturns, austerity measures, and social unrest have worsened these challenges in Greece and strained public trust in the police (e.g., Roché & Varaine, 2025). While there is no direct research on Greek police digital marketing and citizen cooperation, studies from other contexts consistently show that public trust in police is the strongest predictor of cooperation behaviors, such as reporting crimes or assisting police efforts (e.g., Simpson & Pappas, 2024; H. Wang et al., 2024). The quality of brand relationships is influenced by Social Media Marketing Activities (SMMA), which, in turn, shapes citizens' citizenship behavior, according to the political marketing literature (Kumar & Sharma, 2024). This study aims to ascertain whether similar psychological processes apply to public safety, specifically Greek urban policing. The Greek Police is increasingly using social media platforms for public engagement, but little is known about the theoretical mechanisms through which police SMMA affect urban citizenship behavior.

1.2 Research objectives and initial assumptions

The research objectives of this dissertation have been determined based on critical works by Mulrooney et al. (2024) and Kumar and Sharma (2024).

This study aims to investigate the impact and nature of the relationship between Greek Police Social Media Marketing Activities (PSMMA) and urban citizens' citizenship behaviors, independent of brand relationship quality. Furthermore, it examines how brand relationship quality influences voluntary citizenship behaviors toward the police.

Second, we will investigate whether brand relationship quality mediates the relationship between police SMMA and citizen citizenship behavior and assess whether this mediation is full or partial.

Third, we will examine the moderating role of citizens' educational qualifications and age on (1) the relationship between brand relationship quality and citizenship behavior, and (2) the relationship between police SMMA and brand relationship quality formation.

Below, we set the initial assumptions of the study, which provide theoretical foundation for the research and establish the framework within which the results should be interpreted.

- (1) Sequential Psychological Mechanism. Citizens first use police SMMA as identity cues to form brand relationship quality (trust/satisfaction), then reciprocate with citizenship behaviors. BRQ is the necessary mediating mechanism, not just an enhancer. Direct PSMMA and CCB effects will be weak/non-significant. This political marketing framework transfers to public safety contexts.*
- (2) Differential PSMMA Component Salience. Not all PSMMA dimensions equally drive relationship quality. Credibility dominates, followed by Interaction, Content Quality and eWOM. Trustworthy information matters most for police legitimacy. User endorsements have limited impact in authority-based contexts. Resources should prioritize credibility-building over content volume.*
- (3) Demographic Boundary Conditions. Age moderates identity formation. Younger citizens respond more strongly to digital engagement. Education moderates behavioral conversion. Higher-educated citizens more readily translate trust into*

cooperation. Moderators operate at different model stages. Other demographics have negligible effects.

1.3 Research approach

To investigate and clarify the connections between the Hellenic Police's social media marketing initiatives (PSMMA) and the ensuing growth of public satisfaction and trust, the dissertation uses a deductive research methodology. It also looks at how citizenship behavior is formed because of these actions. This method is based on well-known theoretical frameworks, especially Social Identity Theory and Social Exchange Theory. The study focuses on whether citizens' behavior is directly impacted by the police's social media activity or if this is a result of the trust and satisfaction that the police have built up with the organization. Testing the developed hypotheses (H1–H6) derived from the theoretical framework is the aim of this quantitative, explanatory study. To illustrate the possible variations in how citizens react to police SMMA, it also accounts for the moderating demographic effects of age and education. Questionnaires will be used to gather primary data to validate the suggested model and make final conclusions. Additionally, the study places the research within the Greek urban context, which increases the findings' practical relevance and offers insights into local citizen-police digital engagement.

1.4 Importance of the topic, expected contributions and justification for the focus of the study

Although the Hellenic Police has been using social media platforms since 2010 (Hellenic Police, 2011), the effects these activities have brought about on urban citizenship behavior remain poorly understood. User satisfaction and engagement are influenced by the effectiveness of influencers on social media, based on the source's perceived authority, expertise, and reliability (Wellman, 2022). Social media can improve police engagement (Triantafillidou & Yannas, 2024). Urban residents' reactions to police social media activity are influenced by these opinions, which relate to the caliber of brand relationships.

Three important knowledge gaps stand in the way of progress in this field. First, the Theoretical Transfer Gap questions whether the sequential integration of Social Identity Theory and Social Exchange Theory—validated in political marketing—applies to police-

citizen digital relationships in the public safety domain. Second, the Mediation Mechanism Gap concerns whether brand relationship quality (trust and satisfaction) mediates the relationship between police SMMA and citizenship behavior, or whether direct effects dominate, and how these pathways compare in strength. The Boundary Conditions Gap, the third gap, examines how individual characteristics, such as age and educational attainment, shape these relationships and explain differences in the effectiveness of police social media across urban citizen groups. This theoretical and empirical gap hinders the development of targeted approaches for diverse demographics, hinders evidence-based optimization of police social media strategies, and limits our understanding of how digital engagement translates into genuine cooperation.

There are important theoretical, methodological, practical, and contextual ramifications to solving this issue. The study develops citizenship behavior construct for police contexts and applies political marketing frameworks to the field of public safety by progressively integrating Social Identity and Social Exchange Theory. It also tests cross-contextual validity in Mediterranean Europe. In terms of methodology, it creates validated Greek-language tools for police SMMA, operationalizes citizen behavior toward police, tests mediation and moderation using regression-based path analysis, and offers a comparative baseline for upcoming cross-national research.

It provides the Greek Police with evidence-based guidelines for content strategy, resource allocation, training, and performance metrics; empowers citizens through improved responsiveness, transparency, and collaboration; and provides policymakers with data for democratic governance frameworks, affordable engagement options, and digital policing policy. This study, which addresses European policing issues in a Mediterranean context and advances knowledge of digital governance in Greece and Southern Europe, is the first systematic investigation of the Greek Police's effectiveness in digital engagement.

1.5 Structure of the dissertation

The dissertation is organized into eight distinct chapters.

The first chapter describes the research aim, objectives, and approach, presenting the main research problem and highlighting the significance of examining police social media marketing in relation to urban citizen citizenship behaviour in Greece. It identifies the key

theoretical and empirical gaps in the literature, explains how the study intends to address them, and outlines the originality and expected contributions to both theory and practice, setting the foundation for the subsequent chapters.

The second chapter presents the definitions of the dissertations' main concepts, such as: Police Social Media Marketing Activities (PSMMA), Brand Relationship Quality (BRQ), Citizen Citizenship Behaviour (CCB), Digital Engagement and Digital Policing

The third chapter provides a comprehensive analysis of current police social media engagement practices and citizen responses in urban Greece, the strategies employed, the effectiveness of content and interaction, and the challenges faced by the police in fostering active citizenship behaviours.

The fourth chapter presents the theoretical framework, Social Identity and Social Exchange Theories, the hypotheses and assumptions, the research model, and the literature support organized around each research hypothesis.

The fifth chapter describes the research methodology, which includes the study's approach and motive, the research method, the sample, strategy, process, and data collection, and the research itself.

The sixth chapter of the dissertation presents the research results, including descriptive statistics, reliability analysis, and frequencies, questionnaire interpretation, confirmatory factor analysis, hypothesis testing, correlation and regression analyses, mediation and moderation analysis, and a summary of the research results with the support of the research hypotheses.

The seventh chapter discusses the research results compared to previous similar studies and provides deeper insights into the literature, discussing theoretical and practical implications and future research directions.

The eighth and last chapter concludes and presents the final conclusions organized around each research objective and a concise summary of the Discussion.

Chapter 2 - Definition of the concepts

This chapter critically discusses the fundamental concepts related to this dissertation. These are considered vital for comprehension. The chapter structure follows and presents the definitions of the dissertation's main concepts, which are: 2.1 Police Social Media Marketing Activities (PSMMA), 2.2 Brand Relationship Quality (BRQ), 2.3 Citizen Citizenship Behaviour (CCB), and 2.4 Digital Engagement and Digital Policing

2.1 Police Social Media Marketing Activities (PSMMA)

Brands implement PSMMA as a major practice to maintain closer links with their audience (Ibrahim, 2021). Through this setup, keeping track of how the public perceives different online initiatives becomes much easier (Koay et al., 2020). Everything from basic networks and blogs to wikis, virtual environments, and web hubs plays a part in this process. Ultimately, such channels serve to simplify direct, personalized communication with the customer base.

Traditional advertising does not always work well in many industries compared to methods that create strong trust and two-way dialogue (Kim & Ko, 2011). This method is effective in achieving such results by emphasizing five different areas: keeping content trendy, being interactive, being entertaining, being personalized, and encouraging word of mouth. Mixing these factors will naturally improve a company's reputation while keeping buyers satisfied and engaged.

Social platforms have evolved and PSMMA has much room to grow. The popularity of live streams and short video clips have changed the way regular people interact with businesses and peers, making the interaction more natural. Since this type of content is closely related to users' thinking and feelings, it easily motivates the public to comment, like, and chat during live feeds (Zheng et al., 2022).

The main antecedent and independent variable in the dissertation's sequential theoretical model, which initiates the process of citizen-police relations, is Police Social Media Marketing Activities (PSMMA). It is regarded as a Higher-Order Construct and is the measurable part of the Greek Police's digital engagement strategy. Given its hypothesis

that initial trust-building necessitates an emphasis on PSMMA quality (e.g. Shahbazi & Bunker, 2024).

2.2 Brand Relationship Quality (BRQ)

Consumers tend to develop emotional bonds with brands that include live, vivid, human characteristics. These connections lead people to become emotionally attached to brands, just as they do to people. Brand Relationship Quality reflects this emotional and motivational attachment that is more complex than simple reviews or buying intentions. It comprises emotional relationships, behavioral bonds, and cognitive beliefs that support trust, intimacy, and cooperation quality. People with a strong BRQ tend to view the brand's actions positively, even when they are controversial, while those without that special bond are not affected in the same way (Kim et al., 2013).

People with strong bonds are more likely to engage in civic duties such as providing feedback, fostering a favorable perception of the police, and helping the community. They are more likely to react favorably to initiatives and actions, even if they demand personal time and dedication, if they have a higher level of trust and satisfaction with the police. Mulrooney et al. (2024) believe that the Gendarmerie Directorate's "mobile office" strategy will promote long-lasting relationships with the public.

Effective complaint management is a crucial strategy to attract and increase citizens' loyalty, as complaints can be seen as opportunities to address their changing needs and thus become an asset to service quality. Because it depends on the quality of past experiences, feelings of intimacy, influence, and trust, developing such a relationship is essential, particularly in law enforcement. Additionally, human communication—rather than just advertising—must be the foundation of this relationship (De Matteis et al., 2025).

The key BRQ construct serves as the critical mediating mechanism that transforms the police's digital engagement initiatives into citizen action in a sequential model examined in the dissertation. Conceptually speaking, BRQ is the essential psychological prerequisite that links Police SMMA to the desired CCB outcome. Effective PSMMA, especially credible and interactive content, produces quantifiable results by encouraging citizens to identify with a "police-based community", which in turn fosters initial satisfaction and trust.

As a mediating construct, BRQ is defined by two dimensions: Trust (confidence in police dependability and integrity) and satisfaction (positive affect from interactions and

met expectations). In a high BRQ, it is hypothesized to create the reciprocal obligations necessary for voluntary cooperation, as per Dobson et al. (2025).

2.3 Citizen Citizenship Behaviour (CCB)

CCB refers to voluntary, discretionary actions that citizens take to promote community safety and police effectiveness (Hurst et al. 2024). Its foundation is the literature on customer citizenship behavior and organizational citizenship behavior theory (e.g., Van Steden & Hartog, 2024). The construct used in this study was created especially for the context of police-citizen relations. CCB includes actions that citizens decide to take because they value their relationship with the police institution, as opposed to actions mandated by law or formal requirements.

Since social media and online communication have made these behaviors more common in the digital age, they are particularly relevant to comprehending how police digital marketing campaigns foster sincere cooperation (e.g., Nweke and Anim-Wright, 2023; Elphick et al., 2021). In Greece's urban setting, the concept is particularly relevant. This is because voluntary cooperation is both more difficult and crucial for successful community policing (Roché & Varaine, 2025).

The construct comprises three distinct but interrelated dimensions: (1) feedback (providing crime-related information, reporting suspicious activities, and sharing community safety concerns with police), (2) advocacy (defending police reputation, generating positive word-of-mouth, and publicly supporting police initiatives both offline and on social media, and helping (voluntary participation in crime prevention programs, cooperation during investigations, and engagement in community safety activities like neighborhood watch programs), (e.g., Kumwenda et al. 2024; Turner & Milburn, 2025). These dimensions reflect progressive levels of citizen engagement, from information-sharing to active promotion to direct participation in safety initiatives.

Since CCB is the ultimate behavioral outcome that police social media marketing efforts seek to foster—converting passive followers into active partners in public safety—understanding it is essential. (e.g., Bullock et al., 2021). By examining how police SMMA influences these voluntary citizenship behaviors through brand relationship quality, the

dissertation addresses a critical gap in understanding the mechanisms that convert digital engagement into real-world cooperative action in the public safety domain.

The dependent variable—the primary behavioral outcome of interest—is a fundamental component of CCB and represents the observable outcomes of police efforts to engage citizens digitally (e.g., Neumann & Schott, 2023; Leppert et al., 2022). CCB refers to voluntary, non-contractual contributions that urban citizens make to the Greek Police. Social Exchange Theory, which holds that the high-BRQ created through social media creates reciprocal obligations and encourages citizens to "return benefits" to the police, theoretically explains its existence. The dissertation aims to empirically examine whether the police's digital marketing initiatives ultimately translate into these "actual citizen cooperation behaviors".

2.4 Digital Engagement and Digital Policing

The term "digital engagement" refers to interactions between the public and law enforcement on digital platforms, including information sharing and community discussions (Kumwenda et al., 2024). However, by relying on digital literacy and trust, police social media marketing limits true empowerment, undermining this notion (Zhang et al., 2024) and leaving people vulnerable to deceitful influence campaigns.

Police social media marketing turns natural conversations into strategic marketing objectives by leveraging customized messaging for information sharing and surveillance (Horgan et al. 2025), and this approach views public participation as a "police force multiplier" (Turner & Milburn, 2025). When people believe they are participating in safety initiatives voluntarily, it becomes difficult to distinguish genuine communication from manipulation. This is due to the important questions it raises, such as whether involvement benefits the police alone or the community at large.

Algorithmic campaigns known as "influence policing" are used in digital policing to "nudge citizen behavior and shape community culture" and deter crime (Horgan et al., 2025). Digital policing shapes public perceptions and behaviors on a scale through unidirectional marketing-driven communications (Horgan et al., 2025), radically altering the relationship between the public and the police from mutual communication to one-way advertising campaigns.

Influence policing uses data analytics and surveillance to deliver customized messages, frequently without the citizens' express consent (Horgan et al., 2025). Police power extends into digital domains by eschewing traditional surveillance checks and developing systems that gently influence behavior. Because it makes it difficult for citizens and oversight organizations to assess the appropriateness and risks involved, this algorithmic opacity compromises democratic accountability.

Citizen behavior is significantly influenced by police social media marketing (Kumwenda et al., 2024). Although citizen participation can promote accountability (Turner & Milburn, 2025). To influence public opinion, police employ marketing strategies such as "cop-baiting" (Huey et al., 2024), which can weaken accountability and create a contradiction. According to Yilmaz et al. (2025), police are a "double-edged sword" due to the increased surveillance and control that participatory technologies entail.

Chapter 3 – Situation Analysis

Chapter 3 presents a situation analysis of the digital engagement, brand relationship quality, citizenship behavior and social media marketing influence in the policing context. The chapter is structured as follows: 3.1 Greek police digital engagement and social media; 3.2 Current Greek citizenship behavior toward police; 3.3 Brand relationship quality, citizenship behavior and social media marketing influence in the Greek policing context; and 3.4 Concluding remarks.

3.1 Greek police digital engagement and social media

The Hellenic Police (ELAS) no longer use paper-based systems for communication, crime analysis, and personnel management; instead, they use the Police Online (POL) platform. There is a proficiency gap because, although 52.3% of officers use digital tools regularly, only 36.4% feel fully conversant with them. The integration of digital governance with Gov . gr is the result of this evolution. 50.5% of respondents believe that digital services enhance inter-service cooperation, while 40.2% identify significant drawbacks (Ztalios, 2025).

Many employees face productivity barriers: 46% are dissatisfied with their training, and 82% feel they need more (Ztalios, 2025). In rural areas with poor internet, 40% report inadequate equipment, while 57% regularly experience technological issues (Asimakopoulos et al., 2025). Despite these issues, 65.1% of officers want greater effectiveness and transparency, emphasizing the value of communication in building strong bonds (Asimakopoulos et al. 2025; Ztalios, 2025).

Greece has a high social media usage rate, with 56% of the population using it for news, according to the Eurobarometer Social Media Survey 2025 (Business Daily, 2025). Short posts and videos are preferred by 65% of users aged 15-24 and 57% of those aged 25-39. The Greek Police have used social media since 2010. The accounts are managed by the Press and Communications Office of the Ministry of Citizen Protection, within a framework of updated policy that defines publication rules and guidelines for each platform. Platforms include Facebook, Instagram, X, YouTube, and LinkedIn. The posts, which emphasize two-way communication while complying with data protection and legal requirements, provide information on police actions, social initiatives, road safety, citizen guidance, and human trafficking (Hellenic Police, 2016).

The Hellenic Police demonstrate their commitment by monitoring user messages and comments in accordance with policy and by providing leadership with important information (Hellenic Police, n.d.-a). Short films, like the Stay Informed campaign on scams, are frequently shared by major news organizations like ANT1 News (2025). Hashtags help categorize posts for easier user engagement (Hellenic Police, 2016).

When the first official Facebook page was launched, it gained 10,000 followers in its first month (Hellenic Police, 2016). Subsequently, the Hellenic Police created 13 new Facebook pages for some of its regional divisions (General Regional Police Directorates) to inform citizens about police activities and public safety matters (Hellenic Police, 2018).

The Greek Police update its content on X 2-10 times a day and on Instagram 1-3 times a week, mainly using photos and videos to inform citizens about operations, safety, community initiatives, and traffic conditions in the streets of Athens. YouTube and LinkedIn are used for press conferences, training, and other announcements. The timing and content of posts are relevant to the current news and public interest, showing how social media is used to both inform and engage the public (Hellenic Police, n.d.-a).

3.2 Current Greek citizenship behaviors toward police

The lack of public trust in the police is more an issue that has beset societies across the world throughout history than a problem unique to a specific nation (Bradford et al., 2022), even though the police are precisely the institution tasked with bridging these trust gaps for the proper functioning of organized societies (Jenkins, 2023).

The Greek economic crisis of 2009, along with the financial difficulties it brought to the country, revealed the eroded foundations on which political and institutional structures were built, further undermining the already fragile trust, cooperation, and confidence in fundamental institutions (Maris et al., 2021), resulting in a slightly above-average percentage of citizens (55.3%) expressing confidence in the Greek police, according to a 2023 survey conducted by Hellenic Foundation for European and Foreign Policy (2024). As indicated by the Public Issue survey (2024), disappointment reached 54% in 2024, with citizens reporting that they do not trust the police. Because of the Greek economic crisis, the police experienced high staff turnover, few new hires, and wage cuts. The insecurity that followed forced some individuals to choose a career in policing primarily for financial stability rather than a sense of public service. Moreover, due to insufficient funding police

departments also face shortages in equipment, like vehicles and other consumables. On the positive side, latest technological advancements have modernized police equipment, introduced biological methods, and streamlined procedures. Elements that contribute to more effective crime prevention and control (Mouzaki, 2025).

During 2025, approximately 40.5% of Greek citizens participated in voluntary activities over the past year, while this percentage rises to 66.3% when previous years' participation is included. The main areas of involvement are social solidarity, environmental protection, and health (Athens University of Economics and Business [AUEB], 2025). However, when it comes to initiatives supporting community safety, little has been displayed. The attempt for the construction of Local Crime Prevention Councils is restricted, since these councils only function in a few municipalities, face scarcity in staff and coordination, and often their communication with citizens is poor (Papos, 2025). Eighty-two Local Councils for Crime Prevention operate in municipalities across Greece (Hellenic Police, n.d.-b). Given that there are 332 municipalities across the country, this represents approximately 24.7% of all municipalities and indicates that in most areas, citizens count primarily on the police for crime prevention.

Citizens' feedback helps the public sector services to evaluate their processes. It is a way for governments and organizations to better understand users' needs and perceptions allowing more targeted interventions. Although modern tools make it is easier to collect and analyze comments, the feedback is not always representative. According to survey, 70,8% of the citizens in the province area of Komotini feel comfortable to communicate with the police, while 29,2% do not, due to the police officers' behaviour and efficiency (Mavropoulos, 2020), emphasizing that those who provide input often constitute only a small percentage of the overall population, and the usefulness of their comments can differ a lot. Also, not really knowing how the system works can cause confusion and make the conclusions less reliable (Kwon & Wortley, 2020).

In Greece, neighborhood police officers constitute a direct channel of communication with the community, acting as recipients of information about citizens' problems and concerns and channeling these to the administration and municipal services. Additionally, the Local Crime Prevention Councils (LCCPs) gather feedback through consultations, meetings, and surveys, integrating it into the planning and implementation of preventive policies. A typical example is the BeSecure-FeelSecure programme, where

information provided from residents and shop owners was leveraged for the establishment of a victim support unit (Zarafonitou et al., 2024).

3.3 Brand relationship quality, citizenship behavior and social media marketing influence in the policing context

A recent survey shows that trust in the Greek Police is low at 31%, compared to 58% for the Armed Forces and +24% for universities, while political parties hold a rating of ~70% (Metron Analysis, 2025). Organisation for Economic Co-operation and Development (OECD, 2024) data reveal that only 54% of Greeks are satisfied with administrative services, below the OECD average of 66%. Staff behavior, timeliness, and transparency affect satisfaction, which averages 3-4 out of 5 (Psomas et al., 2024). The U.S. Department of State (2024) reports discrimination in U.S. police stations, while Kentro Merimnas Oikogeneias kai Paidiou (2025) finds that 90% of Greeks see stereotypes as common.

With only 24% of respondents willing to reject bribes, stagnant Corruption Perceptions Index scores raise serious legitimacy concerns (OECD, 2024; Transparency International, 2024). The U.S. and the European Parliaments (Guittet et al., 2022) challenge Tyler's (2004) procedural justice principles by denouncing discrimination and excessive force. Some police officers hold far-right beliefs (Independent Police Complaints Authorities' Network, 2023). Hough et al. (2010) emphasize procedural justice as a source of legitimacy. Czapska and Struzińska (2018) support that social media can build trust in Southeastern Europe. Additionally, 96% of officers use social media to enhance their profile (Walsh & O'Connor, 2019).

Greek police trust is highly susceptible to social and political shocks (Roché et al., 2025). Government-blamed crises often impact the police, undermining public confidence. Adverse actions can reduce trust, while positive actions can enhance it (Roché & Varaine, 2025). Greece's low World Justice Project (2024) Rule of Law Index ranking (29th regionally and 47th globally) indicates public mistrust and democratic regression. Events like the Tempe Valley rail disaster in 2023, which raised questions about official responses, have heightened this skepticism (Samaras, 2025).

Much research has been devoted to engagement metrics (likes, shares and comments) not relationship quality or trust. Meijer and Torenvlied (2016) emphasized social media's role in communication and did not find a significant correlation between social media activity and performance metrics. Despite their research being outdated, Czapska and Struzińska (2018) found that it reduces communication barriers. There is little data linking social media use to civic engagement. According to Bullock (2018) engagement may be representative of preexisting relationships rather than establishing trust.

Public trust in Greece is limited. Data shows only 32% of Greeks trust the government and 31% trust social media, largely due to ongoing corruption and poor crisis management (Samaras, 2025; OECD, 2024). Improving responsive and transparent services can boost the customer satisfaction (Psomas et al 2024), but such efforts require major adjustments, as social media can be a supplement but not a substitute for such initiatives. The key question is whether social media marketing can improve relations between the public and the police in places where legitimacy is lacking or if it further worsens the situation. Research spanning from 2020 to 2025 provides conflicting results and leaves the issue unresolved.

3.4 Concluding remarks

Greek law enforcement is associated with institutional challenges, digital transformation, and public trust. Even though the Hellenic Police have been using social media since 2010, problems like inadequate officer training and technical difficulties in rural areas still exist. Several factors, such as the economic crisis, political unpredictability, and corruption, contribute to low public trust. Social media improves visibility and communication, but it cannot replace reforms pertaining to accountability and transparency. The main question is whether it can enhance public-police relations since the data that is currently available suggests that it mainly serves as a communication tool without addressing more fundamental structural issues.

Chapter 4 – Theoretical framework and literature review

The theoretical framework, research model, and hypotheses derived from literature review are presented in Chapter 4. The chapter is organized as follows: 4.1 Frame of reference; 4.2 Social Identity Theory and Social Exchange Theory; 4.3 Theoretical model; 4.4 Assumptions; 4.5 Research model and research hypotheses development; and 4.6 Concluding remarks.

4.1 Frame of reference

Digital civic cooperation develops into Social Exchange Theory, according to Social Identity Theory (Zhang & Zhang, 2025; Zhang et al. (2024). Social media and credible content increase group salience, improve relationship quality, and shape collective identity (Davidson et al. 2025; Kumar et al., 2024). By indicating membership, digital cues foster respect and trust (Levine, 2025; Wang et al. 2024), since relationship quality is converted into cooperative participation through exchange mechanisms, perceived benefits, and reciprocity, and identity acts as the cornerstone (Kothari et al., 2025; Zhang & Zhang, 2025).

Citizenship follows this sequence; Social Exchange Theory explains cooperation when benefits justify reciprocity (Zhang & Zhang, 2025), and Social Identity Theory explains attachment from Social Media Marketing Activities (Kumar et al., 2024; Rather et al., 2024). Quality of Brand Relationships: For extra role helping, advocacy, and feedback, risk is decreased and expected returns are increased (Kumar et al., 2024). Citizenship is a rational, reciprocity-driven choice that is influenced by trust, identification, and value, but engagement effects are not strong in political, service, and digital contexts (Sadighha et al., 2025; Su et al., 2025).

An integration of Social Identity Theory (SIT) and Social Exchange Theory (SET) offers a much clearer picture than other theories can provide. For example, Procedural Justice Theory connects police legitimacy to how fairly people feel they are treated (Tyler, 2006). However, because it focuses on these evaluations rather than deep-seated identity, it falls short when trying to explain proactive digital engagement. Organizational Citizenship Behavior addresses discretionary helping yet assumes hierarchical employment, which is inconsistent with voluntary citizen–police collaboration (Organ, 1988). Relationship

Marketing emphasizes long-term bonds but omits SIT's group identification and SET's reciprocity norms and weakens its basis for relationship formation and motivation (Morgan & Hunt, 1994). The SIT–SET synthesis, uniting identity and exchange-based mechanisms, better explains digital civic.

The interpretative value of the proposed framework lies in the possibility of distinguishing between identity-based and exchange-based pathways. A full mediation pattern would suggest that the digital engagement is mainly driven by psychological identification rather than instrumental persuasion. Moderators also have double theoretical importance. Age, according to Social Identity Theory, has a clear effect on access to digital identity and in-group alignment. From the perspective of Social Exchange Theory, education enhances an individual's capacity for cost-benefit evaluations, thereby facilitating the transition from Brand Relationship Quality to Citizen Citizenship Behaviour (Gouldner, 1960).

It is difficult to apply Social Identity and Social Exchange theories to policing because of overlapping constructs. Social identification is not the same as self-categorization; IATs are better to measure categorization and match-mismatch designs are better to isolate identification (e.g. Huang et al., 2025). Whitham et al. (2024) argue that reciprocity should be separated from trust in Social Identity Theory, because different exchange structures have distinct effects on bonds and solidarity. Citizen-police trust is distinct from satisfaction and legitimacy (Jonathan-Zamir et al., 2024). Civic cooperation relies on moral obligations from the social contract and procedural justice within a transactional reciprocity framework (Jonathan-Zamir et al., 2024).

4.2 Social Identity Theory and Social Exchange Theory as complementary mechanisms

Social Identity Theory co-developed by Taifel and Turner in the late 1970s (Tajfel & Turner, 1986; Tajfel & Turner, 1979) posits that people's self-concept is partly derived from their memberships in social groups, leading them to categorize the social world into ingroups and outgroups, identify with ingroups by adopting their norms and values, and compare groups to achieve positive distinctiveness (Turner et al., 1987). Minimal, arbitrary grouping elicits ingroup favoritism and outgroup derogation, intensified by salient, competitive boundaries

(Brewer, 1999). Salient identity redirects behavior from personal preferences to ingroup norms and prototypicality (Turner et al., 1987).

Regarding the Social Exchange Theory, according to Homans, based on his seminal work outlining social behavior as exchanges of rewards and costs (Homans, 1958), with Blau who extended the theory to macro-level structures of power and dependence, according to the work of Blau in 1964 (Blau, 2017) explain social relations as ongoing exchanges in which actors seek to maximize rewards and minimize costs, with interactions regulated by norms of reciprocity, trust, and the gradual development of commitment (Blau, 2017; Homans, 1958). Satisfaction and dependence stem from comparison levels and alternatives, guiding persistence or exit (Kelley & Thibaut, 1978). Resource/alternative gaps create power–dependence asymmetries, shaping influence and stability, according to the work of Emerson, in 1962 (Emerson, 2019). In organizational and marketplace contexts, these mechanisms underpin key outcomes such as relationship quality, citizenship behaviors, and loyalty, as partners reciprocate perceived benefits and fair treatment over time (Cropanzano & Mitchell, 2005; Blau, 2017).

Contemporary research shows that social identity and social exchange operate as complementary mechanisms that promote cooperation and organizational justice. Shared identity frames enhance generalized reciprocity beyond calculative self-interest (Harrell et al., 2023; Whitham, 2021). Exchange norms drive task performance via reciprocity obligations, while identity constrains counterproductive behavior and fosters citizenship (Liao et al., 2024; Ohana et al., 2023). The relationship is reciprocal, since high-quality exchanges and procedural justice build trust and team identification, and strong identity sustains positive evaluations despite short-term inequities (e.g., Davlembayeva et al., 2021). Together, these pathways maintain prosocial behavior through material returns and symbolic belonging.

4.3 Theoretical model by Kumar and Sharma

Voter citizenship behavior (VCB) and political parties' social media marketing (SMMA) are indirectly related through brand relationship quality (BRQ), according to Kumar and Sharma's (2024) mediation model (see Figure 4.1 below). The association between BRQ and VCB is thought to be moderated by educational attainment. Contributions are not causal; they are theoretical. The argument, based on Social Identity Theory and Social

Exchange Theory, is that before reciprocal dynamics are linked to civic behaviors, social media use may first enhance relationships through identity-related processes.

The framework enhances understanding of political marketing in digital contexts, but its scope and underlying assumptions appear constrained and require further explanation. The model states that without cultivating high-quality relationships, social media alone is unlikely to lead to civic behaviors. However, the psychological relationship between identity formation and reciprocity remains unclear, particularly whether trust and satisfaction serve as BRQ components independently or jointly. Operationally, SMMA is seen as a second-order formative construct made up of interaction, word-of-mouth, content, and credibility. BRQ (trust and satisfaction) serves as the mediator; commitment is not included. VCB consists of feedback, assistance, and advocacy. Higher educational attainment may be linked to a stronger conversion of relationship quality into citizenship behaviors, as the model suggests that education moderates the BRQ–VCB link.

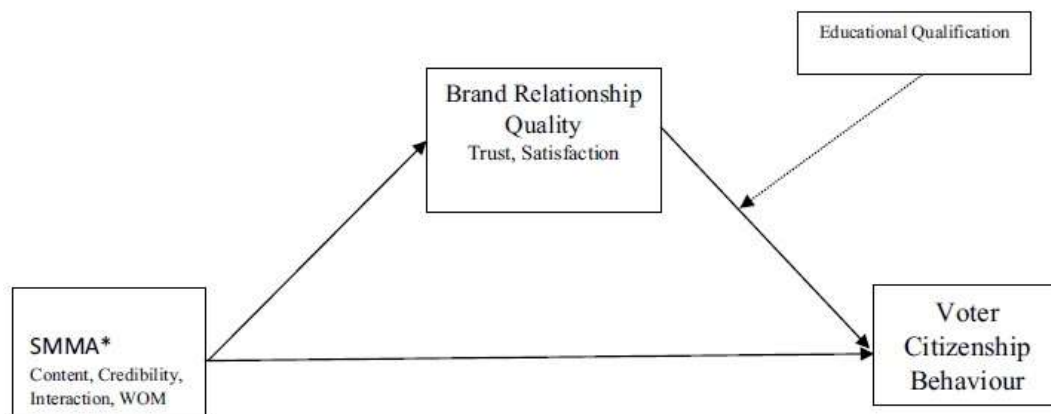


Figure 4.1: Model by Kumar and Sharma (2024, p. 5)

4.4 Assumptions

Social Identity Theory explains that group membership shapes how people see themselves. When social identities are activated, people start to categorize, identify, and compare themselves to others, which helps them feel unique and boosts self-esteem. Factors like context, status, legitimacy, and stability affect how important these identities are. These identities then guide behavior through group norms and examples (e.g., Hornsey, 2008; Turner et al., 1987). In political marketing, Kumar and Sharma (2024) find that social media marketing builds brand communities by sharing credible content and encouraging

interaction, which creates positive feelings. They also note that frequent engagement on social media strengthens the bond between voters and political brands, and this predicts how voters feel.

According to the Social Exchange Theory, people engage in social interactions to maximize benefits and minimize costs. Relationship longevity is determined by how well the results match expectations and available alternatives. These exchanges also create power dynamics and set up rules for giving back. Behavior is influenced by rewards, either directly or through broader exchanges (e.g., Emerson, 1976). Kumar and Sharma (2024) use this theory to argue that voters who get value from credible content feel a sense of obligation to do more. They also say that voters take on citizenship roles only when they see value, and that reciprocal actions occur only after relationships are built, so Social Exchange Theory comes after identity is formed.

Based on the theoretical assumptions of two complementary theories, Kumar and Sharma's (2024) model relies on the following main assumptions:

(1) Political social media marketing activities—such as content, interaction, credibility, and word of mouth—improve the quality of the relationship with the brand, which then encourages voter citizenship behavior.

(2) Brand relationship quality (BRQ) fully mediates the influence of SMMA on voter citizenship behavior (VCB), making the direct effect of SMMA on VCB non-significant.

(3) Social Identity Theory comes before Social Exchange Theory, meaning that people need to form identity-based relationships before they start to act in reciprocal ways.

(4) Social media marketing activities and brand relationship quality are complex concepts made up of different parts.

(5) Credibility is the most important part of social media marketing activities (Kumar & Sharma, 2024; Hultman, Ulusoy, & Oghazi, 2019).

(6) Higher education levels strengthen the link between brand relationship quality and voter citizenship behavior.

(7) Online and in-person interactions are expected to create the same level of relationship quality.

(8) Citizenship behaviors are thought to help connect political parties with voters who are not engaged, which can lead to more people participating.

4.5 Research model and research hypotheses development

In this subsection, we conduct the literature review, and the research hypotheses derived from the review.

Police social media marketing can increase visibility and project approachability, but the relationship between social media marketing activities and brand relationship quality is more fragile and controversial than initially believed. Officers claim that while visual strategies like emojis and memes can increase approachability, tone, authenticity, and platform appropriateness are frequently issues (Jones et al., 2025). Despite image management efforts, viral controversies on sites like X/Twitter have actively undermined police legitimacy by inciting anger and mockery; the notion that even short, one-way posts increase legitimacy ignores serious backlash risks (Bullock & Dodsworth, 2025).

Furthermore, inconsistent measurements complicate claims of positive influence. Experts are increasingly favoring outcome-based indicators, like sentiment-to-action ratios, over engagement counts because metrics such as likes and follows don't accurately reflect relationship quality (Tarifa-Rodriguez et al., 2024; Gräve, 2019). Interpretation is further distorted by selection effects, which increase the apparent strength of the social media marketing activities-brand relationship by making people who already have positive opinions more likely to believe police reports. Experimental designs with controlled scenarios reduce these biases and yield stronger causal evidence (Wu et al., 2026). Therefore, we can state that:

H1: Police social media marketing activities (PSMMA) positively influences brand relationship quality (BRQ)

The relationship between social media marketing and civic engagement is neither positive nor linear. Although social media marketing activities can make it easier to report issues and attend events, it also risks fostering information bubbles, escalating polarization, and disseminating counter-narratives that lead people to turn away from cooperation and toward resistance (Hampton & Cotter, 2025; Nair et al., 2025). In crises, slow or poor responses can worsen disorder and erode trust, meaning social media marketing activities may

sometimes hinder rather than foster civic engagement (e.g., Shahbazi & Bunker, 2024; Zheng, 2023).

Power dynamics also matter critically. When citizens perceive surveillance or persuasive tactics as manipulative, this limits their sense of agency and discourages positive citizenship behaviors (Nair et al., 2025). Assuming digital rituals and authenticity guarantee participation overlooks how media literacy gaps and digital divides create unequal engagement, especially among younger users (Siegel-Stechler et al., 2025).

Methodologically, equating expressive online actions (likes, shares) with substantive civic behavior is problematic. Tarifa-Rodriguez et al. (2024) and Gräve, (2019) assert that researchers must distinguish between digital performance and verified outcomes, such as actual event attendance, helpful guidance, or documented teamwork. Therefore, we can state that:

***H2:** Police social media marketing activities positively influence citizen citizenship behavior*

Applying the concept of brand relationship quality to policing raises theoretical tensions. Unlike consumer-brand ties, police-citizen interactions involve power asymmetries and limited voluntariness, constraining the branding metaphor (Jones et al., 2025). Cooperation relies on procedural justice and accountability, not just brand management—brand relationship quality promotes citizenship only under these conditions (Ramli et al., 2025).

The relationship is also highly vulnerable to disruption. Negative viral content quickly undermines brand relationship quality by highlighting perceived ineffectiveness, eroding fairness expectations, and discouraging cooperation (Bullock & Dodsworth, 2025). In settings marked by conflict or institutional distrust, branding may appear propagandistic, diminishing both agency and legitimacy. It suggests brand relationship quality depends more fundamentally on substantive fairness and transparency than on messaging strategies (Hampton & Cotter, 2025; Nair et al., 2025).

Methodologically, to reduce selection bias, researchers should examine how brand relationship quality interacts with perceived procedural justice and use designs that evaluate actual behavioral outcomes rather than self-reported intentions (Wu et al., 2026). Therefore, we can state that:

H3: Brand relationship quality positively influences citizen citizenship behavior.

Only when dialogue is sincere and transparent does social media marketing promote civic engagement through brand relationships; when dialogue is negative or viral content is poorly managed, this effect vanishes. (Bullock & Dodsworth, 2025; Jones et al., 2025). Evidence from the UK shows that unchecked online misinformation for police organizations quickly erodes trust, highlighting the need for prompt, credible responses and a consistently positive tone (e.g., Malhotra et al., 2025).

Further, platform culture and local trust baselines significantly moderate this mediation process, making broad generalizations problematic. The relationship may follow an alternative model, such as suppression effects, nonlinear patterns, or echo chamber dynamics, that differ substantially from simple positive mediation (Hampton & Cotter, 2025). Distinguishing correlation from causation requires randomized vignette studies and multi-source behavioral verification (Wu et al., 2026). Therefore, we can state that:

H4: Police social media marketing activities (PSMMA) positively influence citizen citizenship behavior (CCB) through the mediating effect of brand relationship quality (BRQ).

The moderating function of education is more nuanced and possibly conflicting than previously thought. According to the World Economic Forum (2025) and Hampton and Cotter (2025), media literacy increases skepticism in polarized or low-trust environments while simultaneously improving the detection of manipulation, source verification, and constructive engagement in fair conditions. In fact, higher literacy may lessen the impact of brand relationship quality when police messaging seems more image-driven or biased than substantively fair.

According to Siegel-Stechler et al. (2025), literacy among youth plays a crucial role in promoting fact-checking and involvement, but it significantly diminishes in situations where institutional trust is lacking. Education plays a dual role in regulating the relationship: enhancing engagement when practices are truly fair, while decreasing it when communication appears performative or manipulative.

Measurement must consider interacting contextual factors and use actual literacy assessments rather than educational attainment as a proxy. Research shows that while excessive branding damages credibility regardless of literacy levels, co-created content and transparent moderation effectively leverage the skills of educated citizens (World Economic Forum, 2025). Therefore, we can state that:

H5: Educational qualification moderates the relationship between brand relationship quality and citizen citizenship behavior.

Age moderation is substantially more complex due to platform dynamics, regulatory environments, and content preferences. While younger cohorts may favor dialogic, humanized content, algorithmic filter bubbles and age-verification policies actively shape engagement patterns and may systematically exclude minors from police-public discourse (e.g., Hampton & Cotter, 2025). Social media restrictions at the state level also affect how various age groups view police outreach and equity.

Age and communication style also affect how legitimacy is perceived. Bullock and Dodsworth (2025) claim that viral incidents, amplified by particularly appealing memes that appeal to young people, quickly degrade the quality of brand relationships. However, with younger users, personalized responsiveness boosts dependability. Curvilinear patterns in the relationship can result from excessive posting that overwhelms younger audiences or from fatigue effects that linear models ignore.

Selection biases are particularly acute for age moderation: police followers skew toward already-positive youth, conflating pre-existing attitudes with social media marketing activities' effects. Research designs must take into consideration exposure to moderation policies, segment by actual platform access, and test for nonlinear age-conditioned effects. Therefore, we can state that:

H6: Age moderates the relationship between police social media marketing activities and brand relationship quality.

The operational definitions of the key constructs are presented in Table 4-1.

<i>Construct</i>	<i>Short Definition</i>	<i>Key Dimensions</i>	<i>References</i>
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<i>Police Social Media Marketing Activities (PSMMA)</i>	The use of social media platforms by police/political organizations to promote their brand, interact with citizens, share information, and build relationships through content creation, interaction, credible communication, and word of mouth.	• Content • Interaction • Credibility • Word of Mouth	Kumar & Sharma (2024) <i>adapted from: Hultman et al. (2019)</i>
<i>Brand Relationship Quality (BRQ)</i>	An indicator that defines the strength, depth, and quality of the relationship between an organization (political party/police) and citizens, characterized by trust in the organization's dependability and satisfaction with interactions and experiences.	• Trust • Satisfaction	Kumar & Sharma (2024) <i>adapted from: Farhan et al. (2020)</i>
<i>Citizen Citizenship Behaviour (CCB)</i>	The voluntary and reciprocating behavior of citizens to perform extra-role activities including providing feedback, advocating for the organization, and helping others, which increases organizational effectiveness and promotes civic engagement.		Kumar & Sharma (2024) <i>adapted from: Farhan et al. (2020)</i>

Table 4-1: The operational definitions of the key-constructs

The research hypotheses derived from the literature review that inform the research model are presented in Figure 4.2.

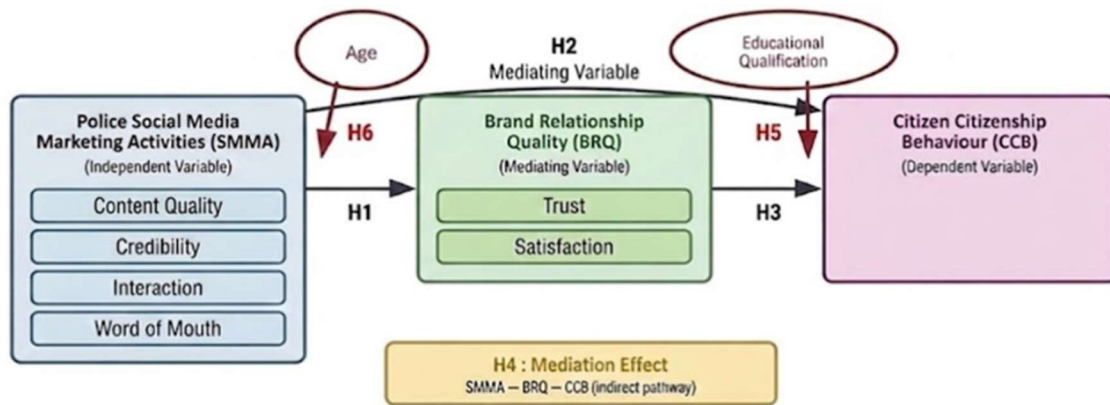


Figure 4.2: Research model. Source: Lazaridou, Z. (2025), “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

4.6 Concluding remarks

This chapter draws on Social Identity Theory and Social Exchange Theory. These effects, influenced by platform dynamics, procedural justice, and authenticity, are often difficult to explain how police social media marketing affects citizens' civic behavior through brand relationship quality. Relationship quality is an important mediator, but messaging tactics are less important than substantive fairness. Demographic factors linked to media literacy, digital access, and institutional trust, add complexity. The research model introduces six hypotheses that address direct, mediating, and moderating effects, while noting challenges such as selection bias, measurement validity, and the limits of branding in policing. Ultimately, the framework shows that relationship quality depends on transparency, procedurally just practices rather than marketing alone.

Chapter 5: Research Methodology

Chapter 5 presents research methodology and design. The chapter is structured as follows: 5.1 Research motive, research approach, and research method; 5.2 Sample, Sampling Strategy, Process, and Data Collection; 5.3 Measures, measurement of variables and variables' level of measurement; 5.4 Structure of the research instrument; and 5.5 Tools and Statistical Analyses.

5.1 Research motive, research approach, and research method

The dissertation investigates the divide between the Greek Police's growing presence online and the knowledge of the role this presence can play in fostering citizen cooperation. Since 2010, the Hellenic Police have embraced a number of social media platforms, but it remains to be seen whether this has resulted in greater cooperation, satisfaction, or trust with the public. This is particularly important in light of the urban Greek context, where the level of public engagement in safety is patchy, police relations are often fraught and trust in institutions is low.

This discrepancy is important because police departments are allocating limited resources to social media without offering solid evidence that these strategies change behavior. In Greece, where the Hellenic Police face financial limitations and legitimacy issues, it is critical to comprehend how social media marketing impacts citizen cooperation. We intend to provide policymakers and decision-makers with academic knowledge and practical recommendations.

We use a deductive approach, drawing conclusions from Social Identity Theory and Social Exchange Theory that can be tested empirically. We gather primary data from Greek urban residents, operationalize constructs using validated measures, and use rigorous statistical analysis to test relationships between police social media marketing efforts, brand relationship quality, and citizen citizenship behavior. Our decision is supported by established frameworks (SIT, SET) that have demonstrated explanatory power in related fields, such as rural policing (Mulrooney et al.) and political marketing (Kumar & Sharma, 2024), which, in the urban Greek police-citizen context, calls for systematic testing.

We use a structured, self-administered questionnaire to collect primary data because: (1) our objectives require modeling relationships among latent constructs (PSMMA, BRQ, CCB) using a two-stage approach, for which multivariate analysis is well-suited; (2) hypothesis testing demands sufficient power to estimate and compare direct, mediating, and moderating effects—beyond what qualitative methods can efficiently provide; and (3) our explanatory focus on the strength and form of variable relationships aligns with a deductive quantitative logic, utilizing regression-based path analysis.

Quantitative constructs are measured using multi-item scales adapted from validated instruments in political marketing and consumer behavior (Kumar & Sharma, 2024; Farhan et al., 2020; Hultman et al., 2019). PSMMA is modeled as a second-order construct measured through its four reflective dimensions (Content Quality, Credibility, Interaction, and Electronic Word-of-Mouth). BRQ is a reflective construct with dimensions of Trust and Satisfaction. CCB is modeled as a single, non-dimensional construct.

Both mediation and moderation analyses are included in the study design. By using these techniques, we can go beyond mere correlations and gain a deeper understanding of how and under what circumstances police digital marketing affects civic cooperation. According to the sequential theoretical logic of PSMMA, the mediation hypothesis first promotes identity-based relationships, as suggested by Social Identity Theory, and then encourages reciprocal cooperation, as explained by Social Exchange Theory. The moderation hypotheses acknowledge that individual differences in digital platform familiarity (age) and cognitive abilities (education) may create boundary conditions for the suggested relationships.

5.2 Sample, Sampling Strategy, Process and Data Collection

The study employs a carefully designed self-administered questionnaire (SAQ) to gather primary data. Google Forms was the platform employed, and the questionnaire was distributed electronically via Greek public forums, social media platforms and email. Participation was voluntary and respondents could withdraw at any time without consequences. All answers are anonymous, and the data are securely stored, accessible only to the research team. The sample includes Greek citizens, familiar with the police's social media accounts. The description of the sample is as follows:

✓ Sampling unit: Adult Greek male and female citizens who use social media and are exposed to content posted on official police social media accounts. Participants belong to different age and education groups, in order to ensure a more reliable examination of the mediating effects.

✓ Sampling area: Data was collected from citizens of four (4) major cities across Greece.

✓ Period of data collection: January 28th to March 15th, 2026.

5.3 Measures, measurement of variables and variables' level of measurement

In our model, the combination of Social Identity Theory and Social Exchange Theory tests how police social media marketing affect citizen citizenship behavior through brand relationship quality. We use adapted, validated scales from political marketing and consumer behavior, and we check reliability and validity during analysis. All items use a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree), chosen for its simplicity, lower mental effort, and quicker responses. This ordinal scale also fits our planned confirmatory factor analysis and captures views on marketing, relationship quality, and citizenship behavior. The primary constructs examined are Police Social Media Marketing Activities (PSMMA), which include content quality, credibility, interaction, and electronic word-of-mouth; Brand Relationship Quality (BRQ), comprising trust and satisfaction; and Citizen Citizenship Behavior (CCB).

(1) *Police Social Media Marketing Activities (PSMMA)* denotes police use of social platforms for brand building, citizen engagement, information sharing, and relationship development through content creation, credible communication, interactive engagement, and electronic word-of-mouth (Kumar & Sharma, 2024; adapted from Hultman et al., 2019). SMMA is modeled as a second-order formative construct with four first-order reflective dimensions: (1.1) *Content Quality (PSMMA_{CO})*, which is the extent to which official content is interesting, informative, and supports safety- and police-related decisions; (1.2) *Credibility (PSMMA_{CR})*, which is the perceived trustworthiness, reliability, and believability that underpin digital legitimacy; (1.3) *Interaction (PSMMA_I)*, which is the degree to which accounts enable information sharing, opinion expression, and two-way citizen–police

conversations; and (1.4) *Electronic Word-of-Mouth (PSMMA_w)*, which is the citizens' willingness to speak positively about, recommend, and direct others to police social media. All PSMMA dimensions are measured at the ordinal level.

(2) *Brand Relationship Quality (BRQ)* is the strength, depth, and quality of the relationship between the police organization and citizens, reflected in trust in organizational dependability and integrity and satisfaction with interactions and experiences (Kumar & Sharma, 2024; adapted from Farhan et al., 2020). BRQ is a second-order reflective construct with two first-order reflective dimensions: (2.1) *Trust (BRQ_T)*, which is citizens' confidence in police dependability, institutional trustworthiness, honesty, and overall confidence in the organization; (2.2) *Satisfaction (BRQ_S)*, which is citizens' evaluation of relationship quality, happiness with police efforts toward responsible citizens, overall satisfaction, and the extent to which experiences meet expectations. Trust captures cognitive and affective beliefs in reliability, while Satisfaction captures evaluative and emotional judgments of relationship quality. The measurement level for BRQ dimensions is ordinal.

(3) *Citizen Citizenship Behavior (CCB)* refers to voluntary, discretionary behaviors that citizens perform outside formal legal obligations, including providing feedback to police, supporting the police organization, and helping others in police-related contexts. According to Kumar and Sharma (2024; adapted from Kanafa-Chmielewska, 2019; Spector et al., 2010), these extra-role activities boost organizational effectiveness and encourage civic engagement in public safety. CCB is operationalized as a reflective construct that captures citizens' voluntary cooperative actions to support community safety and police effectiveness. The measurement level for CCB is ordinal.

Further, we include two demographic moderator variables: educational qualification and age. Educational qualification indicates the highest level of education completed, while age is measured in years at the time of data collection. These variables are expected to influence relationships in the research model.

Constructs	Variables	Questionnaire Items	Scale	Variables' level of measurement	References
<i>Police Social Media Marketing Activities</i>	PSMMACO=Content PSMMACR=Credibility PSMMAI=Interaction PSMMAW=Word-of-Mouth	PSMMACO1: The content of the police's social media accounts seems interesting PSMMACO2: The information provided on the police's social media accounts was informative PSMMACO3: I believe the police's social media accounts are effective in help me make my decision PSMMACR1: Information shared on the police's social media accounts is credible	1 = strongly disagree 2 = disagree 3 = neutral 4 = agree 5 = strongly agree	Ordinal	Kumar & Sharma (2024)

		PSMMACR2: Information shared on the police's social media accounts is trustworthy PSMMACR3: Information shared on the police's social media accounts is reliable PSMMACR4: Information shared on the police's social media accounts is believable PSMMAI1: The police's social media accounts enable information-sharing with others PSMMAI2: It is easy to provide my opinion through the police's social media accounts PSMMAI3: Conversation or opinion exchange with others is possible through the police's social media accounts			
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		PSMMAW1: I would speak positive things about the police's social media accounts PSMMAW2: I would recommend the police's social media accounts to my friends PSMMAW3: If my friends are looking for information regarding current police-related issues or safety, I would tell them to have a look at the police's social media accounts			
<i>Brand Relationship Quality</i>	BRQT=Trust BRQS=Satisfaction	BRQT1: The police give me a feeling of trust BRQT2: I have trust in the police BRQT3: The police give me a trustworthy impression BRQT4: The police is honest	1 = strongly disagree 2 = disagree 3 = neutral 4 = agree 5 = strongly agree	Ordinal	Kumar & Sharma (2024)

		BRQT5: I have great confidence in the police BRQS1: As a responsible citizen, I have a high-quality relationship with the police BRQS2: I am happy with the efforts the police are making towards responsible citizens like me BRQS3: I am satisfied with the relationship I have with the police BRQS4: My experiences with the police meet my expectations			
<i>Citizen Citizenship Behaviour</i>	CCB	CCB1: I assist other citizens if they need my help CCB2: I will provide information when asked by the police CCB3: I teach other citizens to fulfill their civic duties correctly	1 = strongly disagree 2 = disagree 3 = neutral 4 = agree	Ordinal	Kumar & Sharma (2024)

		CCB4: I try to keep updated with the latest development of the police CCB5: I help the police beyond what I am required to do CCB6: I disseminate information about the police that I find useful to others CCB7: I give advice to other citizens	5 = strongly agree		
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Table 5-1: Operational definitions of the key constructs, the measurement and questionnaire items of variables

5.4 Structure of the research instrument

Our survey was conducted using a structured questionnaire consisting of 20 questions organized in 9 sections. The questionnaire is available in English and Greek and is included in Appendix A.

The questionnaire is structured as follows:

Section A consists of four questions (nos. 1-4) relating to the use of official police social media accounts and the frequency of interaction.

Section B consists of four questions (nos. 5-8) regarding the demographic profile of the respondents (gender, age, education, and city of residence).

Section C consists of one question (no. 9) relating to the content quality of police social media and is based on Kumar & Sharma (2024).

Section D consists of one question (no. 10) about the credibility of the shared information and is based on Kumar & Sharma (2024).

Section E consists of one question (no. 11) to the interaction on the police's social media accounts and is based on Kumar & Sharma (2024).

Section F consists of one question (no. 12) about word of mouth and is based on Kumar & Sharma (2024).

Section G consists of one question (no. 13) about trust in the police and is based on Kumar & Sharma (2024).

Section H consists of one question (no. 14) about satisfaction with the police and is based on Kumar & Sharma (2024).

Section I consists of one question (no. 15) about citizen citizenship behaviour and is based on Kumar & Sharma (2024).

5.5 Tools and Statistical Analyses

IBM SPSS Statistics 29 (PS IMAGO PRO 10.0) for Windows was used for reliability, Spearman's rank correlation, regression, mediation, and moderation analyses, while JASP (version 0.96) conducted confirmatory factor analysis.

Descriptive and Inferential Statistics

Descriptive statistics summarize the sample's main features, using mean and median to show common perceptions of police social media activity. Standard deviation and range describe data dispersion and diversity of opinions. Inferential statistics draw conclusions about the broader population using analytical tools like hypothesis testing and regression to examine relationships among key factors. These techniques uncover patterns in citizen-police social media interactions and indicate whether results reflect broader trends in online engagement.

Spearman's Rank Correlation Coefficient

The Spearman correlation coefficient was chosen for its robustness against outliers and its use of ranks, thereby avoiding the inflation that extreme observations can introduce into the Pearson correlation coefficient. This nonparametric test better suits non-normal data, such as Likert scales, and looks for monotonic relationships, thereby strengthening findings by tracking the direction of change.

Confirmatory Factor Analysis (CFA)

CFA determines if questionnaire items accurately reflect theoretical constructs by testing how well empirical data fit a researcher-defined model structure, with each observed variable loading on a single factor.

Social science measurements are prone to errors, so CFA estimates item-level error variance to ensure construct validity. The model's fit is evaluated using indices like CFI, RMSEA, and SRMR. These indices compare the hypothesized model to actual responses. Their values are checked against established limits to see if the model fits the data well.

Validity and Reliability analysis

Psychometric soundness is assured through reliability and validity checks. Reliability is assessed with Cronbach's alpha (0.70 limit) and Pearson index for internal consistency and time stability. Validity checks confirm accurate construct depiction: construct validity by CFA, convergent validity when AVE exceeds proposed limits and factor loadings remain

significant, and discriminant validity by comparing AVEs and variable correlations. Model robustness is verified using goodness-of-fit indices and by keeping VIFs low to avoid factor overlap (Hossan et al., 2025).

Regression Analysis

Regression analysis examines the impact of independent variables on dependent ones and helps forecast trends. This study uses multiple regression to test factors influencing Citizen Citizenship Behavior (CCB), focusing on how Police Social Media Marketing Activities and Brand Relationship Quality interact to predict CCB. Coefficients indicate the direction and strength of effects. Statistical significance tests the reality of associations, and R-squared shows the model's explanatory power.

Mediation Analysis

Mediation analysis examined how police social media marketing activities (PSMMA) influence citizens' citizenship behavior (CCB), focusing on Brand Relationship Quality (BRQ) as a mediator. The total impact (Path c) divides into direct and indirect (via BRQ) effects: Path a (PSMMA on BRQ) and Path b (BRQ on CCB). Exposure to police social media strengthens police-citizen connections, encouraging positive citizenship. The direct effect reflects PSMMA's influence after accounting for the mediator. Statistical validity was assessed via Bootstrapping (5,000 samples); mediation is significant if the zero point falls outside the 95% Confidence Interval, confirming the mediator's role (Hayes & Preacher, 2013).

Moderation Analysis

Moderation analysis tested whether Age (H6) and Education (H5) affect the model's primary relationships. Including an interaction term (Int_1) enabled the assessment of the combined impact of the independent variables and demographics. Interaction coefficients, p-values, and confidence intervals (LLCI-ULCI) evaluated these effects. A bootstrapping method (5,000 samples) ensured statistical rigor (Memon et al., 2019)

Chapter 6: Research results

Chapter 6 outlines the research findings derived from the questionnaire responses. The chapter is organized as follows: Section 6.1 presents the sample characteristics and descriptive statistics; Section 6.2 analyzes the interpretation of the questionnaire responses; Section 6.3 focuses on the confirmatory factor analysis; Section 6.4 details the hypothesis testing process. Section 6.5 summarizes the hypothesis testing outcomes; Section 6.6 presents the empirically validated research model.

6.1 Sample characteristics and descriptive statistics

From the 390 total responses collected, 326 were used for the final analysis. The reduction from the initial number of responses was due to the application of the listwise deletion method, ensuring that only questionnaires with complete data across all variables were included to maintain the integrity of the statistical analysis. The sample was limited to participants who use social media, follow the official accounts of the Hellenic Police, and reside in the study's target urban areas: Athens, Piraeus, Thessaloniki, and Patras.

All three variables (PSMMA, BRQ and CCB) displayed negative skewness, indicating that the responses tend to cluster toward the higher rankings of the scale. Regarding kurtosis, PSMMA and CCB are leptokurtic, demonstrating a high concentration of responses around the mean. On the contrary, BRQ yielded a lower kurtosis value, closely approaching a mesokurtic distribution (Table B-12).

The sample was almost equally divided in terms of gender distribution, with 163 men (50.0%) and 157 women (48.2%) taking part in the survey. Six people (1.8%) left the gender question unanswered (Figure B.6 and Table B-7, Appendix B).

In the age category, the 35-44 group is the most frequent, with 155 participants (47.5%). The 25-34 group counts 42 respondents (12.9%). The 55-64 (6.7%, n=22), 18-24 (4.0%, n=13), and 65+ (3.7%, n=12) groups follow with smaller shares. These figures are presented in Figure B.7 and Table B-8.

Higher education graduates make up 37.4% (n=122) of the sample, while another 104 people (31.9%) hold a postgraduate degree. Then there are 82 people (25.2%) with a secondary education certificate. Only a small number of participants have basic education

(n=12, 3.7%) or belong to the other group (n=6, 1.8%). All these data are in Figure B.8 and Table B-9.

Regarding the city of residence, most of the respondents live in Athens, accounting for 64.4% (n=210) of the total. Thessaloniki follows with 24.5% (n=80), while a smaller group of 32 people (9.8%) is located in Piraeus. Finally, only 4 participants (1.2%) are from Patras (Figure B.9 and Table B-10). The sample distribution follows Greece's population hierarchy (Hellenic Statistical Authority, 2023), with Athens, Thessaloniki, Piraeus, and Patras being the four largest cities in descending order. The high percentage from Athens is expected as it is the country's main urban and digital hub, while the small number of respondents from Patras is a result of the different response rates across these cities.

Most respondents (44.2%, n=144) watch the content less than three times a month. Weekly viewing was reported by 19.9% (n=65), while 45 people (13.8%) watch three to five times a month. Finally, 39 respondents (12.0%) watch three to five times a week and 33 (10.1%) are daily viewers (Figure B.10 and Table B-11).

Potential outliers were screened through the inspection of the histograms and Q-Q plots for all main constructs (Figure B.6 Figure B.7 Figure B.8, Appendix B). All responses were retained in the final dataset as they represented valid citizen opinions within the Likert scale range. To further ensure data integrity and mitigate common-method bias, procedural remedies were employed, most notably the guarantee of respondent anonymity.

6.2 Interpretation of questionnaire results

Data from the 326 questionnaires was handled by grouping related questions into categories. To get a clear view of each topic, we used the average scores for these groups rather than looking at individual items. A five-point Likert scale was used to evaluate the answers, with 1 representing the lowest level of agreement and 5 the highest. The calculated descriptive statistics are summarized in Table B-12.

CCB has the highest values both in mean (3.888) and in median (4.000), while PSMMA follows with a mean of 3.548 and a median of 3.615. BRQ recorded a mean of 3.460 and a median of 3.556. All three variables remain above the neutral score of 3.0, showing a positive trend in the participants' responses.

BRQ shows the highest dispersion ($SD = 0.918$), indicating more diverse user perceptions. In contrast, CCB and PSMMA exhibited lower variability ($SDs = 0.689$ and 0.663 , respectively), suggesting more consistent and unified responses regarding these two factors.

PSMMA items generally saw high levels of agreement. Most respondents found the accounts interesting (52.1%) and informative (59.2%), though their effectiveness in helping with decision-making was primarily met with a "Neutral" response (42.6%). Credibility items recorded strong agreement, ranging from 47.5% to 53.7%. Specifically, 53.7% viewed the shared information as reliable, 48.2% found it trustworthy, and 49.1% agreed it is believable. In the Interaction category, "Neutral" was the dominant response for all three items; 42.9% were neutral regarding information-sharing, while 40.5% and 42.6% held the same stance regarding the ease of providing an opinion and the possibility of conversation. Lastly, Word of Mouth intentions were positive, as 49.4% would speak positively about the accounts and 43.3% would recommend them to friends, while 56.1% agreed they would refer others for safety information.

Brand Relationship Quality also showed a trend toward agreement. In terms of Trust, most statements saw agreement levels between 32.8% and 41.4%. Notably, 41.4% of respondents feel the police provide trust, with 40.8% stating they trust them. Regarding "great confidence," 34.0% remained neutral. 41.1% reported a high-quality relationship and 44.5% expressed satisfaction, while 40.8% are happy with efforts toward citizens. For expectations, 37.7% agreed and 33.7% stayed neutral.

On CCB, 55.5% of participants agreed they assist others, 49.7% provide information to the police, and 53.7% teach civic duties. Additionally, 46% share information, 49.7% give advice, and 46.9% stay updated. For extra effort, 35.3% were neutral and 34.7% agreed. Additionally, 46% agreed they disseminate useful information, while 49.7% stated they give advice to other citizens. Furthermore, 46.9% agreed they try to stay updated with police developments. In contrast, the attempt to help the police beyond what is strictly required saw a shift in the trend, as "Neutral" became the most frequent response (35.3%).

6.3 Confirmatory factor analysis

6.3.1. Model specification

A confirmatory factor analysis (CFA) was conducted to assess the validity of the three constructs of the research. The Confirmatory Factor Analysis (CFA) was conducted using JASP, which operates on the lavaan package (Rosseel, 2012). While SMMA is common in literature (e.g., Kumar & Sharma, 2024), it is operationalized here as PSMMA for contextual alignment. The model was specified as a first-order multi-factor structure, where constructs were analyzed through their sub-dimensions to ensure measurement integrity (Table B-37). Although PSMMA and BRQ are conceptualized as higher-order constructs, they were operationalized using aggregated composite scores for the subsequent path analysis. This handling accounts for the sensitivity of fit indices to model complexity, such as the number of factors and items (McNeish & Wolf, 2023), while maintaining a parsimonious approach for hypothesis testing.

The model includes three main constructs derived from the theoretical framework: Police Social Media Marketing Activities (PSMMA), Brand Relationship Quality (BRQ), and Citizen Citizenship Behavior (CCB). These factors were measured using several variables, as shown in detail in Table 5-1.

Factor one: PSMMA – Police Social Media Marketing Activities.

The PSMMA factor consists of four sub-factors:

Content (CO)

The Content factor consists of 3 indicators (PSMMACO1 to PSMMACO3), with standardized loadings ranging from 0.760 to 0.871 and standard errors ranging from 0.018 to 0.027.

Credibility (CR)

The Credibility factor consists of 4 indicators (PSMMACR1 to PSMMACR4), with standardized loadings ranging from 0.694 to 0.933 and standard errors ranging from 0.010 to 0.030.

Interaction (I)

The Interaction factor consists of 3 indicators (PSMMAI1 to PSMMAI3), with standardized loadings ranging from 0.706 to 0.877 and standard errors ranging from 0.022 to 0.033.

Word-of-Mouth (W)

The Word-of-Mouth factor consists of 3 indicators (PSMMAW1 to PSMMAW3), with standardized loadings ranging from 0.789 to 0.906 and standard errors ranging from 0.014 to 0.023.

Factor two: BRQ – Brand Relationship Quality

The BRQ factor consists of two sub-factors:

Trust (T)

The Trust factor consists of 5 indicators (BRQT1, BRQT2, BRQT3, BRQT4, and BRQT5), with standardized loadings ranging from 0.898 to 0.946 and standard errors ranging from 0.007 to 0.012.

Satisfaction (S)

The Satisfaction factor consists of 4 indicators (BRQS1 to BRQS4), with standardized loadings ranging from 0.863 to 0.926 and standard errors ranging from 0.010 to 0.016.

Following Kumar and Sharma (2024), these dimensions are integrated into a single composite measure to ensure model consistency.

Factor three: CCB – Citizen Citizenship Behavior

CCB is treated as a single-factor construct in this study, following the approach of Kumar and Sharma (2024). This choice focuses on the aggregate intensity of the voluntary actions and is statistically supported by the CFA results, which confirmed that all indicators converge into a single latent factor with high loadings. The factor Citizen Citizenship Behavior (CCB) consists of 7 indicators (CCB1, CCB2, CCB3, CCB4, CCB5, CCB6, and CCB7). The standardized estimates for this scale range from 0.632 to 0.798 and standard errors ranging from 0.024 to 0.037.

6.3.2. Model fit assessment

The estimates indicate that all of the variables load fit well onto their respective factors. The standardized estimates were high, indicating strong construct validity. Additionally, the

confidence intervals are narrow, and all p-values are significant (< 0.001), indicating high statistical significance for each factor loading. The path diagram was created using Jasp and is presented in summary in Figure 6.1: Confirmatory factor analysis (CFA) path diagram.

CFA results showed a satisfactory model, $\chi^2 (356) = 864.816$, $p < .001$. CFI (0.944), TLI (0.936), and NFI (0.909) were above 0.90. GFI (0.963) was higher than the 0.95 threshold. SRMR (0.046) and RMSEA (0.066) were below the 0.05 and 0.08 limits respectively. All factor loadings were significant at $p < 0.001$. The significant Chi-square was expected because of the large sample size and does not indicate poor fit (Marsh et al., 2004).

Detailed CFA results are shown in Figure 6.2 and Table B-37 through Table B-39

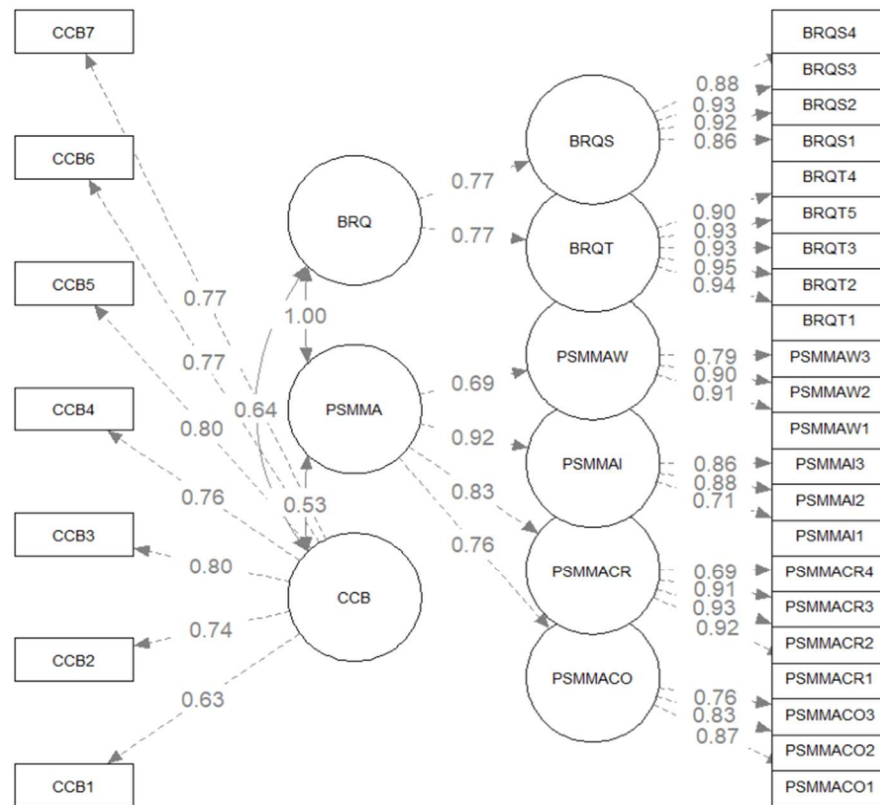


Figure 6.2: Confirmatory factor analysis (CFA) path diagram

(PSMMA: Police Social Media Marketing Activities, BRQ: Brand Relationship Quality, CCB: Citizen Citizenship Behaviour)

Source: Lazaridou, Z. (2026) "Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece"

6.3.3. Factor loadings and significance

A detailed overview of the loadings and standard errors for each latent variable is provided in Table B-37(Appendix B). All indicator loadings reached statistical significance at the $p < .001$ threshold, with none of the 95% confidence intervals containing zero, confirming the robustness of the factor structure.

The overall mean loading across all 29 observed variables was 0.841. BRQT demonstrated the highest average loading (0.928), followed by BRQS (0.898), PSMMAW (0.867), PSMMACR (0.866), PSMMACO (0.822), PSMMAI(0.813), and CCB which showed the lowest average (0.752).

Twenty-seven out of the twenty-nine indicators exceeded the 0.70 threshold. Only two items, PSMMACR4 (0.694) and CCB1 (0.632), showed loadings slightly below this value. The highest individual loading was observed for BRQT2 (0.946).

The mean estimate values for each construct are presented in Table B-40.

6.3.4. Reliability and internal consistency

Reliability analysis was conducted using Cronbach's α and McDonald's ω coefficients for each construct factor. To test internal consistency, bootstrapping with 5,000 samples was used for increased robustness.

The Cronbach's α values across all constructs ranged from 0.900 to 0.968, significantly above the generally accepted threshold of $\alpha \geq 0.70$, and even surpassing the more stringent threshold of 0.90. The highest α was observed for BRQ ($\alpha=0.968$), followed by PSMMMA ($\alpha=0.927$), indicating exceptional internal consistency.

The McDonald's ω results further confirmed these findings, with values falling between 0.904 and 0.969. Both reliability indices showed consistent results across all constructs, with all values remaining well above the preferable levels. This stability confirms that the measurement scales for PSMMMA, BRQ, and CCB are highly reliable and suitable for further statistical analysis.

Detailed results of the reliability analysis are presented in Table B-42

6.4 Hypothesis testing

6.4.1 Correlation analysis

Preliminary analysis of the data distribution revealed significant negative skewness and leptokurtic distributions for the main constructs, as evidenced by the descriptive statistics in Table B-12 and the non-normal distribution patterns (PSMMA:

Figure B.6; BRQ:Σφάλμα! Το αρχείο προέλευσης της αναφοράς δεν βρέθηκε.Figure B.7; CCB: Figure B.8). Due to these deviations from normality and the subsequent violation of parametric assumptions, Spearman's rank correlation was preferred to investigate the relationships between the variables. Values from 0.00 to 0.30 show a weak link, while those from 0.30 to 0.60 indicate a moderate one and r from 0.60 to 0.90 is considered a strong correlation.

While Spearman's rank correlation was employed to assess monotonic relationships given the ordinal nature of the Likert scales, fitted polynomial equations were also computed to quantify the strength and direction of the monotonic trend between variables.

This dual approach is justified as the constructs were analyzed using composite scores, which behave as interval data in social science research (Sullivan & Artino, 2013). Furthermore, according to Norman (2010), parametric tests like linear regression are remarkably robust against violations of ordinality, especially when the intent is to estimate the magnitude of an association. Finally, diagnostic tests confirmed that the residuals follow a normal distribution (Figure B.10 Figure B.11), a condition that ensures the validity of the linear model regardless of the original scale of the data (Schmidt & Finan, 2017). The model was checked for multicollinearity, yielding a VIF of 2.46 and a Tolerance value of 0.41, both of which are well within the acceptable thresholds. These results confirm that the independent variables are distinct and do not bias the regression outcomes. Homoscedasticity was confirmed through the residual scatterplot (Figure B.13). The residuals are randomly dispersed without any funnel-like patterns, satisfying the assumption of constant error variance. Bootstrapping (5,000 samples) was applied throughout the hypothesis testing process to further ensure the robustness of the findings and address the non-normal distribution of the original variables.

The results of the Spearman correlation are presented in Table B-43 in Appendix B.

Research Hypothesis 1 (H1): Police social media marketing activities (PSMMA) positively influences brand relationship quality (BRQ)

The relationship between PSMMA and BRQ shows a strong positive trend, with a Spearman's rho of 0.739. Given that the p-value is under 0.01, we can be confident that this connection is statistically significant and not just a coincidence. In terms of the actual impact, the equation $Y = 1.07X - 0.33$ indicates that for every single unit PSMMA goes up, BRQ follows with a 1.07-unit increase. The intercept sits at -0.33, which is the baseline for BRQ when there is no PSMMA activity. Overall, the linear model fits the data well, explaining 59.4% of the variance ($R^2 = 0.5938$), which leads us to support H1.

The equation explaining the relationship is:

$$Y=1.07 \cdot X-0.33 \text{ (6.1)}$$

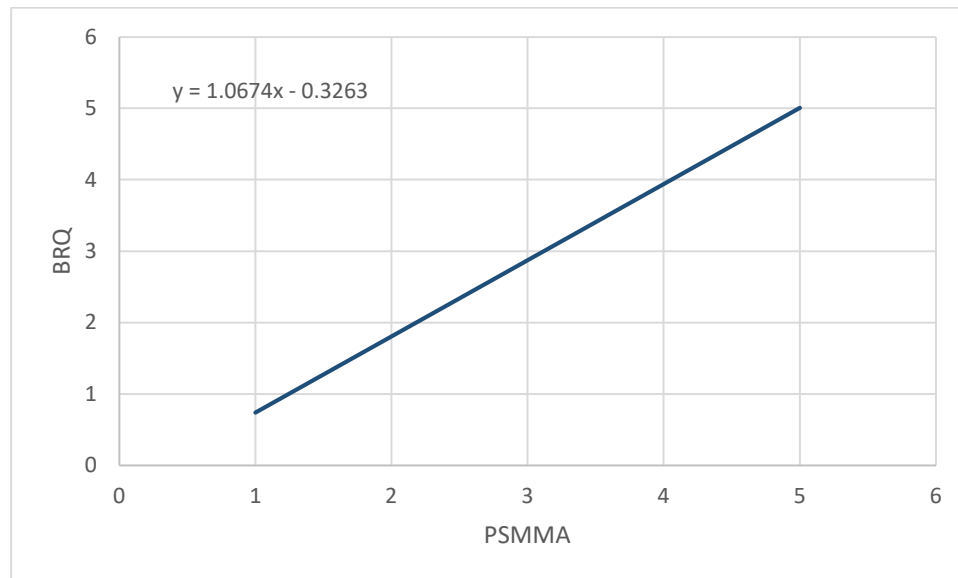


Figure 6.2: Linear positive monotonic relationship between PSMMA and BRQ

Source: Lazaridou, Z. (2026) "Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece"

Research Hypothesis 2 (H2): Police social media marketing activities positively influence citizen citizenship behavior

The Spearman's rho value is 0.575 ($p < 0.01$), indicating a moderate positive relationship that is statistically significant. Both the 6.3 Figure and the equation show a clear linear link, where PSMMA (X) and CCB (Y) move upward together. With a positive slope of 0.67, it's evident that higher levels of marketing lead to more participation from citizens.

The 1.51 intercept shows the starting level of CCB even without marketing efforts. The linear model explains 41.6% of the variance ($R^2=0.4158$), providing enough evidence to support hypothesis H2.

The equation explaining the relationship is:

$$Y=0.67 \cdot X+1.51 \text{ (6.2)}$$

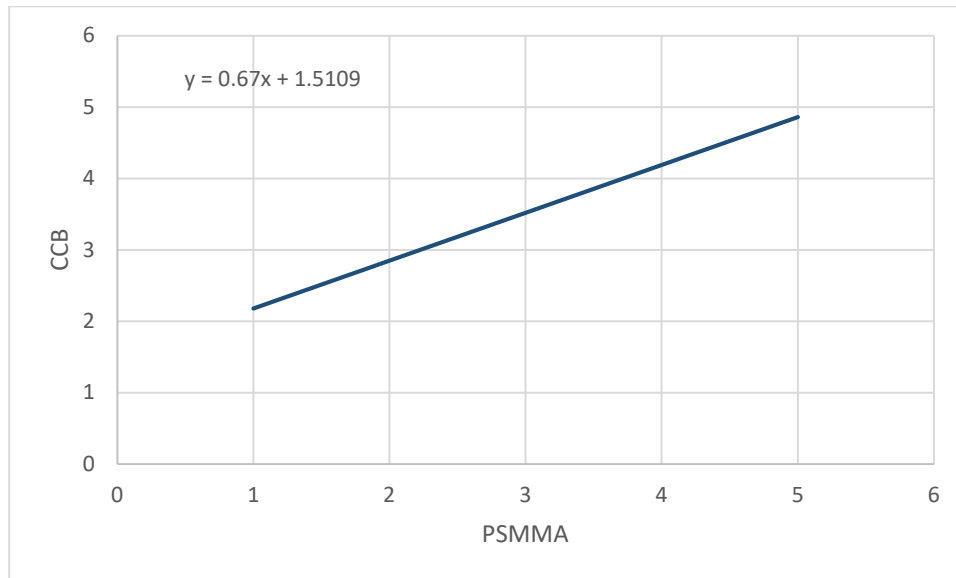


Figure 6.3: Linear positive monotonic relationship between PSMMA and BRQ

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Research Hypothesis 3 (H3): Brand relationship quality positively influences citizen citizenship behavior.

The Spearman’s rho value is 0.568 ($p < 0.01$), indicating a moderate positive relationship that is statistically significant. Figure 6.4 and the regression equation confirm a linear and positively monotonic relationship, meaning the link between BRQ (X) and CCB (Y) is linear. The positive slope (0.45) indicates that as brand relationship quality increases, citizenship behavior also increases. The intercept (2.33) is the baseline level of citizenship behavior when brand relationship quality is zero. The linear model explains 36.2% of the variance ($R^2=0.3622$), leading us to support hypothesis H3. The equation explaining the relationship is:

$$Y=0.45 \cdot X+2.33 \text{ (6.3)}$$

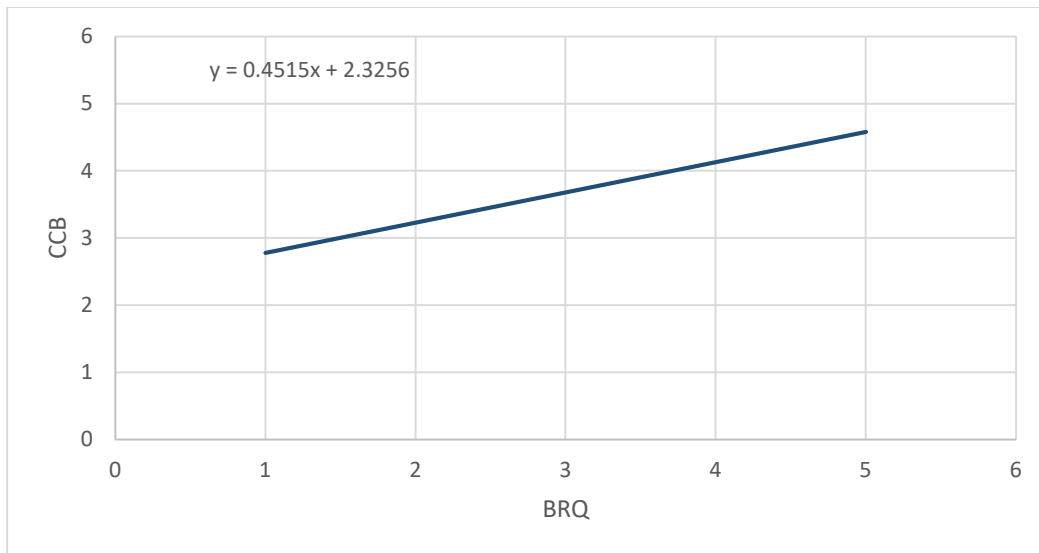


Figure 6.4: Linear positive monotonic relationship between BRQ and CCB

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

6.4.2 Mediation analysis

Research Hypothesis 4 (H4): Police social media marketing activities (PSMMA) positively influence citizen citizenship behavior (CCB) through the mediating effect of brand relationship quality (BRQ).

The results show that the overall mediation model is statistically significant ($p < 0.001$). For the initial analysis, the model explains 59.4% of the variance in brand relationship quality ($R^2 = 0.5938$), with a highly significant relationship ($p < 0.001$). Path a (PSMMA and BRQ) is significant (coeff=1.0674, $p < 0.001$), demonstrating that marketing activities show a strong positive link with relationship quality.

Regarding the second part of the analysis, Path b (BRQ $\rightarrow$ CCB) is also significant (coeff=0.1939, $p < 0.001$), indicating that higher relationship quality relates to higher levels of citizen citizenship behavior. The model at this stage explains 44.3% of the variance in CCB ($R^2 = 0.4429$).

The indirect effect of PSMMA on CCB through BRQ is 0.2069, which is statistically significant. This is confirmed by the Bootstrapped 95% Confidence Interval [0.0786, 0.3280], which does not include zero.

Finally, the direct effect (Path c) of PSMMA on CCB remains significant (coeff=0.4631, $p < 0.001$) after accounting for the mediator. This indicates the presence of partial mediation, as both the direct and indirect paths are significant.

Figure 6.5 shows the mediation effect of BRQ on the relationship between PSMMA and CCB, while the full PROCESS output is presented in Table B-44. Therefore, Hypothesis 4 is supported.

The results indicate a pattern of partial mediation, as both the indirect effect through BRQ and the direct effect of PSMMA on CCB remain statistically significant. BRQ instead of being a strictly necessary mediating mechanism appears to function more as a significant enhancer of this relationship. This implies that although constructing trust and satisfaction is important for fostering cooperation between the two parties, high-quality and interactive social media content alone can also act as a functional trigger. Consequently, marketing efforts can encourage public engagement both indirectly, by strengthening the police-citizen bond, and directly, through the immediate impact of digital communication activities.

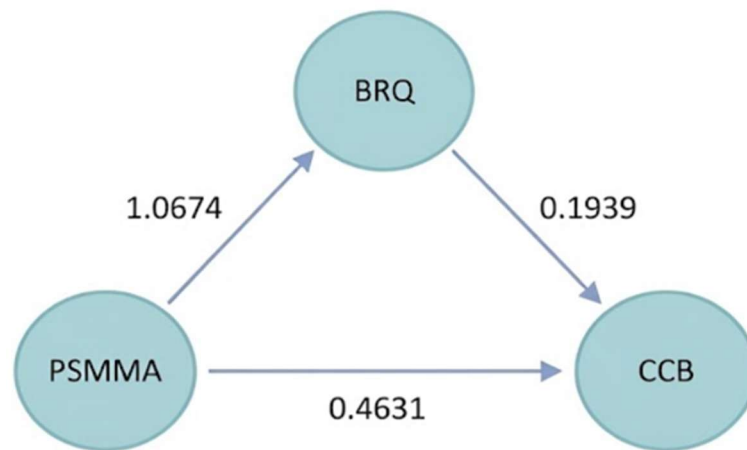


Figure 6.5: Mediation effect of brand relationship quality (BRQ) on the relationship between police social media marketing activities (PSMMA) and citizen citizenship behavior (CCB)

Source: Lazaridou, Z. (2026) "Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece"

6.4.3 Moderation analysis

Research Hypothesis 5 (H5): Educational qualification moderates the relationship between brand relationship quality and citizen citizenship behavior.

The model explains 37.12% of the variance in CCB ($R^2=0.3712$, $p<0.001$). A significant link exists between BRQ and the outcome here ($p<0.001$), while education does not seem to moderate the relationship between BRQ and CCB ($p=0.3116$). Table B-45 shows the complete moderation output.

The interaction between BRQ and education returned a p-value of 0.1444. Given this result and the fact that the confidence interval $[-0.1284, 0.0189]$ includes zero, education doesn't seem to change how BRQ works. Essentially, the influence of BRQ on CCB remains the same across all education levels. Consequently, H5 isn't supported. The regression equation is:

$$\text{CCB} = 1.9104 + 0.6175 \cdot \text{BRQ} + 0.1360 \cdot \text{education} - 0.0548 \cdot (\text{BRQ} \cdot \text{education}) \quad (6.4)$$

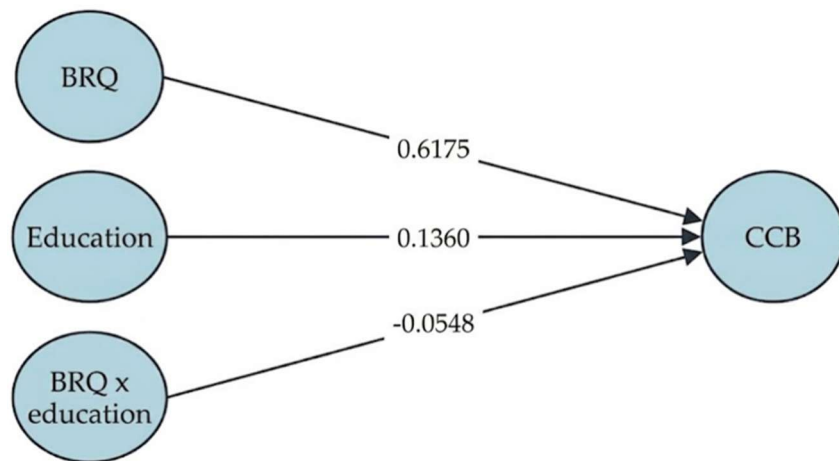


Figure 6.6: Moderation effect of education on the relationship between citizen citizenship behaviour and brand relationship quality

Source: Lazaridou, Z. (2026) "Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece"

Research Hypothesis 6 (H6): Age moderates the relationship between police social media marketing activities and brand relationship quality.

The results of the moderation analysis indicated that the overall model is statistically significant ($p < .001$), accounting for a substantial 59.8% of the variance in BRQ ($R^2 = 0.5981$). Despite the robustness of the general model, the data does not provide evidence to support the proposed moderation effect.

Specifically, while a significant relationship exists between PSMMA and BRQ (coeff=1.0562, $p < .001$), neither age ($p = .7056$) nor its interaction with PSMMA ($p = .9977$) reached statistical significance. These findings suggest that the impact of PSMMA on BRQ remains uniform across various age groups, meaning age does not moderate this relationship. Consequently, H6 is not supported.

The regression equation is:

$$\text{BRQ} = -0.5389 + 1.0562 \cdot \text{PSMMA} + 0.0593 \cdot \text{age} - 0.0001 \cdot (\text{PSMMA} \cdot \text{age}) \quad (6.5)$$

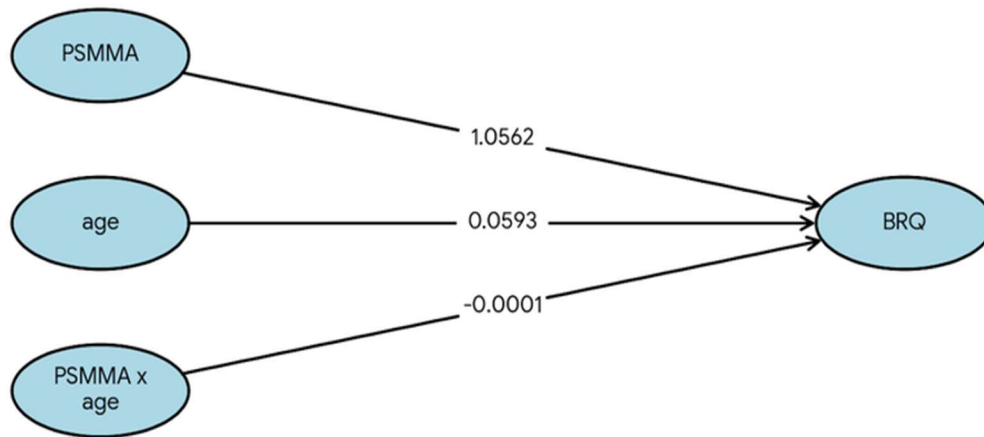


Figure 6.7: Moderation effect of age on the relationship between police social media marketing activities and brand relationship quality

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

The non-significant interaction terms for H5 and H6 suggest an absence of boundary conditions in this sample, indicating that the model’s relationships remain stable. This can be explained by restricted variance in the demographic profile, as the sample is heavily concentrated in the 35-44 age group (47.5%) (Table B-8) and among highly educated participants (69.3% holding a degree or higher) (Table B-9). Such concentration limits the statistical power to identify significant differences between groups. Furthermore, regarding H6, formal education may be an insufficient proxy for digital literacy. Academic background does not necessarily reflect a citizen's fluency with social media marketing. Therefore, the impact of PSMMA appears consistent across the surveyed urban population.

6.5 Summary of hypotheses testing

Figure 6.8 summarizes the research results.

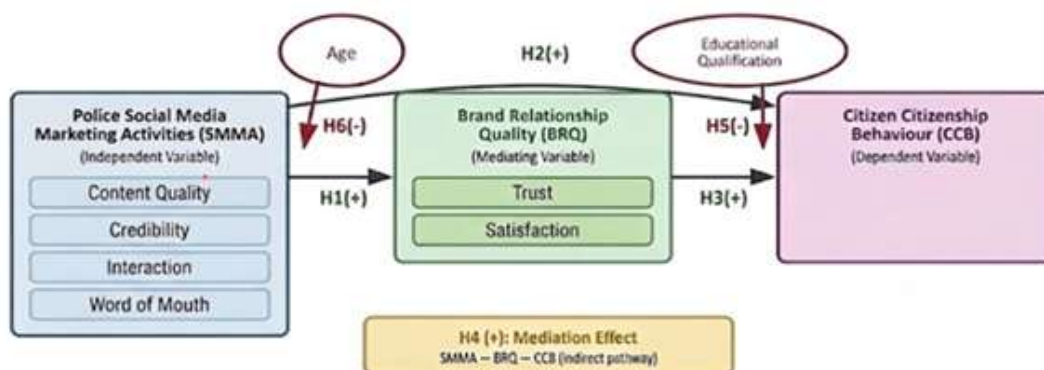


Figure 6.8: Research model including the research hypotheses results

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

In the following table (Table 6-1) we summarize the support of the research hypotheses and the significance level.

Hypothesis	Support	Significance level
<i>H1: Police social media marketing activities positively influences brand relationship quality</i>	Supported	a= 0.01
<i>H2: Police media marketing positively influences citizen citizenship behavior</i>	Supported	a= 0.01
<i>H3: Brand relationship quality positively influences citizen citizenship behavior</i>	Supported	a= 0.01
<i>H4: Police social media marketing activities positively influence citizen citizenship behavior through the mediating effect of brand relationship quality.</i>	Supported* **	a= 0.01
<i>H5: Educational qualification moderates the relationship between brand relationship quality and citizen citizenship behavior.</i>	Not Supported**	a = 0.05
<i>H6: Age moderates the relationship between police social media marketing activities and brand relationship quality.</i>	Not Supported**	a = 0.05
*Supported (partial mediation) **H4: Indirect effect significant (BootCI excludes 0): partial mediation H5: Int(BRQ×Edu) p=.144; CI crosses 0 H6: Int(PSMMA×Age) p=.998; CI crosses 0		

Table 6-1: Hypotheses' results

Source: Lazaridou, Z. (2026) "Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece"

Based on the assumptions of the adopted theoretical model we can interpret the above research results as follows.

- The model's Social Identity Theory premises that social media marketing cues like credibility, interaction, content, and eWOM serve as identity signals that improve citizens' perceptions of the quality of their relationship with the institution is strengthened by the support for H1 (Kumar & Sharma, 2024). In other words, stronger perceived police social media marketing is associated with

higher levels of satisfaction and trust, exactly the "identity-based relationship formation" the model anticipates before the emergence of reciprocity-based behaviors.

- The support for H3 aligns directly with the model's Social Exchange Theory component: after a higher-quality relationship (trust and satisfaction) is established, citizens are more likely to reciprocate through discretionary cooperative behaviors (Kumar & Sharma, 2024). In this model, BRQ is the psychological "exchange platform" that channels positive relational evaluations into willingness to help, advocate, and provide feedback, citizens return relational benefits with extra-role contributions.
- The model's sequential mechanism (SIT, BRQ, SET) is supported empirically by H4, which shows that brand relationship quality partially mediates the impact of social media marketing on citizenship behavior. The results indicate partial rather than complete mediation, as H2 also shows a direct PSMMA-to-CCB effect. In this dataset, BRQ is a crucial "relationship-first" pathway connecting PSMMA to CCB, but it is not the only one.
- The evidence supporting H2 demonstrates that, regardless of relationship quality, police social media marketing initiatives are also associated with citizenship behavior. This calls into question rigid interpretations that, in the absence of complete BRQ mediation, "social media alone is unlikely to lead to civic behaviors". Instead, the data indicate that certain aspects of PSMMA might encourage direct cooperative behaviors, and BRQ adds a relationship-based effect (Aljarah et al., 2022). Relationship quality is still crucial, but there are both relational and non-relational routes to citizenship behavior (Rasul et al., 2024). This finding improves the model.
- The lack of support for H5 indicates that in this sample, the strength of the relationship between relationship quality and citizenship behavior is not consistently influenced by educational qualifications. This implies that either educational attainment does not capture the pertinent mechanisms (such as media literacy or civic efficacy) assumed by theory, or reciprocity-based responses to BRQ are generally rather than education-level specific.
- The lack of support for H6 suggests that the relationship-building effect of police social media marketing does not differ systematically by age in this

dataset. Relative to the assumptions, this implies that identity-based relationship formation from PSMMA cues (SIT stage) may be operating in a broadly similar way across age groups, at least inside the observed sample composition, or that age (as measured) does not adequately capture relevant differences in platform practices/exposure that would create moderation.

- Assumption (4) that SMMA and BRQ are multi-component constructs is consistent with the supported effects for H1–H4 since the overall composite relationships exhibit the predicted behavior. However, H1–H6, as currently developed and tested, do not directly evaluate Assumption (5) that credibility is the most significant SMMA dimension (they treat PSMMA as an aggregate predictor). Therefore, an interpretation that is consistent with the model is conditional.
- Although the overall SMMA package is important (supported), additional dimension-level analyses would be needed to determine whether credibility predominates (e.g., by comparing eWOM, interaction, content, and credibility pathways into BRQ and/or CCB).
- The current hypothesis results (H1–H6) do not examine whether online and in-person interactions yield comparable relationship quality (Assumption 7) or whether citizenship behaviors activate previously disengaged citizens (Assumption 8).

The interpretations in this Chapter should not imply that these claims are proven; rather, they are theoretical predictions for additional study (e.g., data from various sources or longitudinal designs). This keeps the tested hypotheses consistent.

6.6 Empirical Tested Model

Following the detailed hypothesis testing, a linear regression analysis was performed to determine how key predictors, namely Police Social Media Marketing Activities and Brand Relationship Quality influence Citizen Citizenship Behaviour.

The specific effects of each variable on CCB are detailed in Table B-50 and Table B-51 and Figure B.12 (see Appendix B). Their individual explanatory power, represented by R^2 values, is summarized in Table 6-2.

Regression Variables (Dependent $\leftarrow$ $\rightarrow$ Independent)	R ² Value
CCB $\leftarrow$ $\rightarrow$ PSMMA	0.416
CCB $\leftarrow$ $\rightarrow$ BRQ	0.362

Table 6-2: Summary of individual Regression Analysis of CCB on each of the constructed variables (PSMMA: Police Social Media Marketing Activities, BRQ: Brand Relationship Quality, CCB: Citizen Citizenship Behaviour)

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

The R² values for PSMMA and BRQ were 0.416 and 0.362, respectively. Based on Miles (2014), these indicate a moderate (0.30–0.50) predictive accuracy. Thus, both PSMMA and BRQ exhibit moderate accuracy in predicting CCB.

To estimate the combined effect of the predictors (PSMMA and BRQ) on (CCB), a multiple linear regression was conducted. The model was highly significant, $F(2,323)=128.403$, $p<.001$, with $R^2=0.443$, explaining 44.3% of the variance, a value considered moderate in social sciences (Miles, 2014).

Both predictors, PSMMA and BRQ, significantly influenced CCB ($p<.001$ for both). No variables were excluded from the model, as all p-values were well below the 0.001 threshold, residuals were normally distributed (Figure B.10), the Durbin-Watson statistic (1.951) confirmed the absence of autocorrelation, and the VIF values (2.462) confirmed the absence of multicollinearity issues (Table B-52). The final regression equation is shown below, reflecting the weighted contribution of each variable:

$$\text{CCB} = 1.574 + 0.194 \cdot \text{BRQ} + 0.463 \cdot \text{PSMMA} \quad (6.6)$$

The multiple regression model predicting Citizen Citizenship Behaviour (CCB) from Police Social Media Marketing Activities (PSMMA) and Brand Relationship Quality (BRQ) was statistically significant, accounting for a substantial proportion of variance in CCB. This indicates that, taken together, PSMMA and BRQ provide strong explanatory power for citizens’ citizenship behaviours, supporting the view that both communication activities and relationship quality are meaningful determinants of CCB.

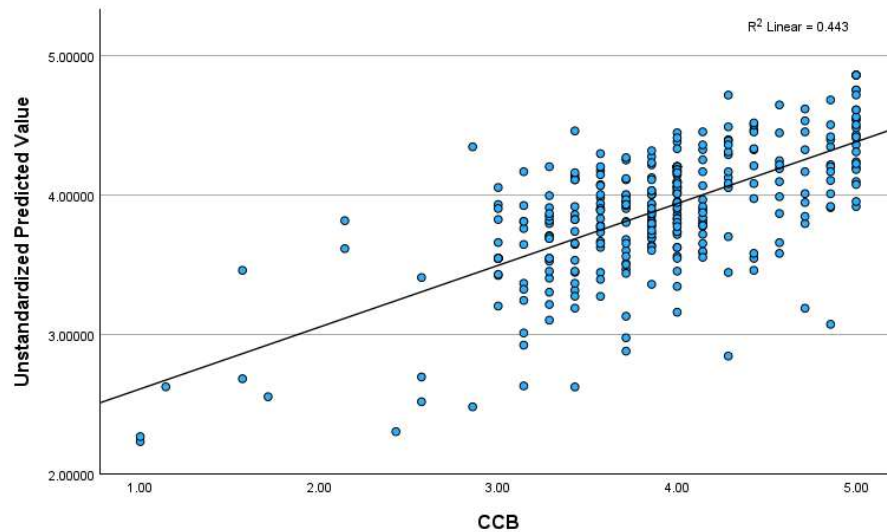


Figure 6.9: Regression fitted line plot

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Therefore, based on the research results, the final model of our study is depicted in Figure 6.1.



Figure 6.10: Empirically tested model

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Chapter 7: Discussion

The chapter synthesizes the dissertation's empirical results to evaluate how far the research objectives were achieved and how strongly the initial assumptions were supported. Section 7.1 assesses the degree to which the objectives were met by clarifying the relationships among Police Social Media Marketing Activities (PSMMA), Brand Relationship Quality (BRQ), and Citizen Citizenship Behaviour (CCB), while also examining mediation and moderation outcomes. Section 7.2 positions these findings within earlier scholarship. Sections 7.3 and 7.4 outline the study's theoretical and practical implications, respectively. Finally, Section 7.5 acknowledges limitations and proposes directions for further research.

7.1 The degree of answering the research objectives and the support of the initial assumptions

In the context of urban Greece, we pursued three interrelated research goals based on the empirical model in Chapter 6 and the objectives and assumptions in Chapter 1. First, we examine the relationships between PSMMA, BRQ and CCB. Second, we wanted to find out if and how much BRQ mediates the connection between PSMMA and CCB. Third, we sought to ascertain whether age and educational attainment function as boundary conditions that moderate the connections between the main constructs.

Overall, the results show that the first research objective was substantially achieved. The hypothesis-testing results support the view that PSMMA is meaningfully associated with citizens' cooperative and voluntary behavioral orientations. Specifically, the evidence linked to H2 indicates that police social media marketing activities are positively associated with citizen citizenship behavior, suggesting that digital police communication can serve as a practical stimulus for cooperation outside formal obligations. In addition, the evidence related to H3 showed that brand relationship quality, operationalized through the key relational pillars of trust and satisfaction, reinforces citizens' willingness to engage in supportive, extra-role behaviors.

Importantly, the regression results offer more proof of these relationships' predictive relevance. The model with PSMMA and BRQ as predictors of CCB was highly significant, explaining 44.3% of the variance in CCB. This amount of variance explained is relevant for behavioral research and shows that relationship quality and digital

marketing activity together provide a strong explanation for why people act cooperatively and discretionarily towards law enforcement, at least in the context of the study.

The results confirmed the conceptualization of BRQ as an important psychological mechanism linking police communication with citizen cooperation and also clearly addressed the second research objective. The mediation analysis (bootstrapping) for H4 using BRQ showed that PSMMA had a positive indirect effect on CCB. Police social media campaigns improve the interpersonal environment, foster citizen satisfaction and trust and enhance the likelihood of civic engagement.

However, interpreting the mediation pattern as partial rather than full is more accurate. When there is a significant direct pathway from PSMMA to CCB, citizens may respond to well-executed digital communication even in the absence of a strong relationship. This suggests two parallel paths to citizenship behavior: (a) a direct functional path where social media communication's quality, relevance, and credibility can accelerate cooperation; and (b) an indirect relational path where BRQ fosters reciprocity and support, and PSMMA enhances BRQ.

The third research objective was addressed, but the findings show that these demographic variables did not perform as meaningful boundary conditions in the present dataset. Both moderation hypotheses (H5 and H6) were rejected, showing that the core relational links among PSMMA, BRQ, and CCB stay statistically stable across age and educational background within the sample studied. This indicates that the model's explanatory mechanism seems broadly consistent with the urban Greek context represented in the data, with digital police marketing and relationship quality influencing citizenship behavior in comparable ways across these demographic categories.

It may be more challenging to identify moderation effects if the sample's demographics restrict the moderators' variance. However, the findings show that PSMMA and BRQ affect a wide range of demographics, making the model more applicable to public-sector communication design.

Taken together, the findings meaningfully address the dissertation's initial assumptions and clarify where the theoretical expectations are fully supported, partially supported, or not supported.

The evidence provides partial support for the proposed sequential psychological mechanism. BRQ clearly operates as a key platform that translates relational bonds into

cooperative behavior, consistent with the logic of exchange-based reciprocation. However, the continued existence of a strong direct link between PSMMA and CCB indicates that identity-based and exchange-based processes may not adequately explain the phenomenon; instead, some digital marketing cues appear to promote citizenship behavior independent of relationship quality. As a result, the central structure of the proposed sequence is validated; however, the results suggest a dual-pathway mechanism rather than a single, mediated pathway.

The Differential PSMMA Component Salience assumption is supported by the measurement data. Certain aspects of the PSMMA construct are more psychologically significant than others, according to the CFA results. The most significant factor was determined to be credibility, suggesting that institutional legitimacy and perceived authenticity support citizens' evaluations of police social media activity. Even though the structural setup did not statistically rank the causal impact of each PSMMA dimension on BRQ and CCB, the measurement results support the idea that citizens prioritize trustworthy, dependable digital cues when forming assessments.

There was no confirmation of the assumption about the demographic boundary condition. Age and educational background do not substantially alter the relationships among PSMMA, BRQ, and CCB in the current study, as indicated by the rejection of H5 and H6. As a result, the model appears demographically sound within the population under study, suggesting that successful digital marketing and relationship-building may serve as broadly applicable levers of citizen cooperation rather than tactics tailored to age or educational background.

7.2 Relating the findings to earlier work

The research results reveal two concurrent pathways and provide strong support for the sequential SIT and SET framework, adapted from political marketing to policing. Although a direct route from PSMMA to CCB is still important, Brand Relationship Quality, expressed through trust and satisfaction, is a key mechanism through which Police Social Media Marketing Activities shape Citizen Citizenship Behavior. Further, the data provide no indication that these mechanisms are moderated by age or education.

Institutional social media as an identity signal that influences relational evaluations is consistent with the literature and the strong positive correlation between PSMMA and

BRQ. Although these effects may be brittle when authenticity or tone is disputed, well-calibrated police communication can decrease psychological distance and increase perceived approachability (e.g., Bullock & Dodsworth, 2025; Jones et al., 2025). The current findings suggest that police social media serves as a significant source of relationship-forming cues for the urban Greek audience, in line with this identity-to-relationship logic. This pattern also addresses the methodological drawback of deriving relationship quality from surface engagement metrics, and selection effects may inflate engagement counts and fail to capture relational outcomes (e.g., Wu et al., 2026).

In our study, the idea that the most insightful results of police digital engagement are relational and psychological rather than purely behavioral, as it measures BRQ directly through trust and satisfaction and still finds a strong correlation with PSMMA, is fully supported. Further, PSMMA predicts CCB, which aligns with the assertion that digital communication can facilitate collaboration by reducing information barriers and offering practical advice. Despite the fact that effects can be nonlinear and may backfire due to polarization, worries about surveillance, or a poor crisis response (e.g., Hampton & Cotter, 2025; Nair et al., 2025).

Therefore, the findings lend credence to a dual pathway theory in which citizens can react directly to trustworthy and pertinent content, while BRQ concurrently facilitates reciprocity-based cooperation, thereby resolving the question of whether engagement reflects only pre-existing relationships (Bullock, 2018). Acknowledging that branding in policing is delicate because cooperation depends on perceptions of fairness and legitimacy, the BRQ-CCB relationship supports the SET premise that relational judgments enable extra-role contributions, particularly under uncertainty. (e.g., Jones et al., 2025; Ramli et al., 2025).

The mediation pattern is less complete than in Kumar and Sharma's (2024) study. Although PSMMA raises BRQ, which in turn raises CCB, there is still a strong direct PSMMA-to-CCB pathway. This aligns with the idea that institutional context and immediate informational value can also motivate public safety cooperation, and it warns against making overly simplistic causal claims in social media influence research (e.g., Wu et al., 2026).

Lastly, the rejection of the moderation hypotheses deviates from predictions that age conditions PSMMA to BRQ via digital familiarity and divides, and that education

strengthens BRQ to citizenship conversion. (e.g., Siegel-Stechler et al., 2025; World Economic Forum, 2025; Kumar & Sharma, 2024). In this case, limited demographic variance and the possibility that formal education is insufficient as a proxy for digital or media literacy, which may plausibly operate in opposing directions, are plausible explanations for the null moderation.

7.3 Theoretical and research implications

The assumed causal architecture explains how police social media marketing results in cooperative citizen outcomes in urban settings, drawing on Social Identity Theory and Social Exchange Theory expanding the existing theoretical frameworks of sequence. Higher brand relationship quality is positively connected with more active police social media marketing (PSMMA). This outcome is consistent with previous sequential reasoning that linked BRQ to PSMMA (Kumar & Sharma, 2024; Farhan et al., 2020). Interactivity, credibility, content quality, and electronic word of mouth are examples of identity-relevant signals. These signals promote a more favorable relational view of the police (Kumar & Sharma, 2024; Hornsey, 2008). This perspective is characterized by increased satisfaction and trust (Farhan et al., 2020; Kim et al., 2013).

Higher brand relationship quality is positively associated with citizenship behavior, which supports earlier findings (Kumar and Sharma, 2024; Farhan et al., 2020) that strong connections encourage extra-role, discretionary collaboration, thereby strengthening the Social Exchange Theory element. Citizens are more inclined to engage in discretionary collaboration when confidence and satisfaction are built (Blau, 2017; Cropanzano and Mitchell, 2005). From a conceptual standpoint, brand connection quality serves as an "exchange platform" for psychology. Positive relational assessments are followed by extra-role cooperative outcomes.

The sequential logic is strengthened by the mediation pattern. Citizen Citizenship Behavior is positively and closely correlated with police social media marketing. Even while brand connection quality also has a significant indirect effect, this supports the dual-pathway idea. This aligns with the sequencing and mediation logic proposed in the dissertation and indicates partial mediation (Kumar & Sharma, 2024). Several elements of police social media marketing can encourage cooperative attitudes, even when relationship quality isn't

the only factor at work. But for long-term cooperation, the relationship-first strategy, grounded in satisfaction and trust, remains crucial (Kumar & Sharma, 2024; Farhan et al., 2020).

These results support an ontological-relational perspective on citizen-police cooperation. According to this perspective, cooperation is not just a reaction to communication cues but rather an emergent result shaped by the social meanings of group membership and reciprocal obligation (e.g., Blau, 2017). From an epistemological standpoint, the dissertation promotes a theory-driven, deductive method. This viewpoint holds that citizenship behavior, happiness, and trust are measurable psychological manifestations of identification and exchange mechanisms (Kumar and Sharma, 2024; Farhan et al., 2020).

Neither the behavioral conversion from relationship quality to citizenship behavior nor the relationship formation from police social media marketing activity to brand relationship quality appears to be influenced by age or educational attainment in this dataset. In the studied urban context, identity-based and reciprocity-based responses may operate similarly across groups. Alternatively, the necessary mechanisms might not be reflected by these demographic proxies (Hampton & Cotter, 2025; Siegel-Stechler et al., 2025). Care must be used when deciding which aspect of social media marketing is most important. The overall predictor of police social media marketing was examined. This limits claims at the construct level while maintaining broad support for the multi-component assumption (Kumar & Sharma, 2024; Hultman et al., 2019).

7.4 Practical implications

Police social media marketing activities are positively correlated with both brand relationship quality and citizen citizenship behavior. Brand relationship quality also predicts citizenship behavior. The empirical model suggests police social media should be regarded as an operational public-safety capability. According to Social Identity Theory and Social Exchange Theory (Blau, 2017; Cropanzano & Mitchell, 2005), police agencies can enhance voluntary citizen cooperation by first offering identity cues through social media activities. They should then maintain reciprocity.

Police reports should, first and foremost, offer timely, accurate, and consistent information at the operational level. This is particularly crucial when misleading information spreads. Clarifications and corrections ought to be published. To maintain the foundations of high-quality brand relationships, police should also publicly explain the "why" behind their actions. Credibility is thus safeguarded by factual restraint, tone discipline, and crisis-response protocols that steer clear of "image-first" messaging. These techniques are particularly important when law enforcement's legitimacy is called into question or when there is a risk of accountability and backlash.

Second, because mediation is only partial, agencies ought to employ a dual-pathway content strategy. Through brand relationships, police social media marketing campaigns have an indirect effect on citizenship behavior. As stated by Kumar and Sharma (2024) and Aljarah et al. (2022), police must strike a balance between relationship-building strategies and useful, action-triggering posts. Posts that prompt action encourage quick collaboration. Relationship-building strategies increase satisfaction and trust. Longer-term collaboration is stabilized by these.

Third, police departments should transition to two-way communication instead of one-way broadcasting. This should include response guidelines, feedback loops for citizen input, moderated Q&As, and clear escalation channels, and there is a need for training. Policemen need to be trained in empathy, communication, and platform governance to make communicative competence an institutional asset (Adamonienė et al., 2025). Training expenditures support long-term implementation. It also tackles the deficiencies in Greek law enforcement's digital competency.

Finally, in performance management, outcome-based indicators should replace "vanity metrics". Tarifa-Rodriguez et al. (2024) argue that engagement counts may not show sincere collaboration or relationship quality. Police organizations can use a unified and consistent digital voice across urban publics, and they should allocate resources to ensure dependability. Monitoring the quality of brand relationships, adopting preventive measures, offering constructive criticism, and verifying tips is more effective than costly demographic micro-campaigns.

7.5 Further research and limitations

The results' generalizability is limited by the exclusion of other Greek cities. This limitation suggests several directions for further investigation. Rather than representing more general national trends, the observed patterns might represent localized digital practices and police-citizen interactions. Future research should use stratified sampling across various Greek regions and city types to ascertain whether elements like local trust, community conditions, or policing styles affect how police social media affects relationships and cooperation.

The sample's low demographic variability may limit the moderation analyses. Since most participants were in a small age range and had comparable educational backgrounds, the study was unable to thoroughly evaluate whether age or education served as boundary conditions. Younger digital natives, older infrequent users, and a larger range of educational and occupational groups should all be included in future studies. Instead of being inferred from educational attainment, digital or media literacy should be measured directly. Differentiating between stated willingness and actual cooperative behavior is still a methodological challenge due to the reliance on self-reported perceptions and intentions.

Survey data and objective indicators should be triangulated in future studies. The modeling of policing and justice scenarios using decision sandboxes akin to Digital Twins should be added to study designs. Researchers are urged to investigate how transparency and narrative explanations affect trust and empathy (Asadi et al., 2025). Because algorithmic justice systems raise issues with opacity, contestability, and equity, implementing such tools requires governance safeguards (Mentxaka et al., 2026). As low-risk, data-driven platforms for testing interventions before real-world implementation, digital twin techniques are becoming increasingly popular.

Chapter 8: Conclusion

The research aim of the dissertation is to examine the theoretical and empirical facets of Greek Police's social media marketing initiatives to comprehend how they affect the citizenship behavior of urban residents via the mediating mechanism of brand relationship quality. In addition to taking into consideration the moderating effects of age and educational attainment in an urban setting, this study attempts to sequentially integrate Social Identity Theory and Social Exchange Theory. We aimed to address the long-documented fragmentation of social media marketing knowledge and investigate and validate a model of police social media marketing activities and the quality of the citizen-police brand relationship (trust and satisfaction) by explicitly linking inputs, mechanisms, and outcomes in a single explanatory chain.

The study was directed by three research objectives. (1) Investigation of the impact and nature of the relationship between Greek Police social media marketing activities and urban citizens' citizenship behaviors, independent of brand relationship quality. Further, how brand relationship quality influences voluntary citizenship behaviors toward the police. (2) Examination of whether brand relationship quality mediates the relationship between social media marketing activities and citizenship behavior and assess whether this mediation is full or partial. (3) Examination of the moderating role of citizens' educational qualifications and age on several relationships.

The Discussion, which combines the empirical results with earlier research, concludes that the observed effects are better understood as relationship-building processes rather than isolated content impacts. Crucially, the observed ranges show no signs of abrupt thresholds, reversals, or saturation, and the plotted patterns indicate steady, upward-sloping correlations: evaluations and cooperative outcomes rise in tandem with perceived PSMMA.

The curves indicate a strong, positive, monotonic relationship with PSMMA inputs, which are concluded to shape citizen evaluations in relation to the first research objective. According to the fitted line, increases in perceived PSMMA are associated with consistent improvements in relationship quality, as indicated by the upward slope of the line. The relationship is best characterized as approximately linear rather than curvilinear because the plot is straight and upward-sloping. This further supports the perception that SMM effectiveness is contingent on how content is perceived and understood.

The evidence supports a partial mediation curve consistent with the mechanism and the explanatory role of relationship quality (trust/satisfaction) for the second research objective. Although PSMMA's direct influence on outcomes persists, the mechanism strengthens the pathway from PSMMA to behavioral outcomes. This means that the results are a direct functional route in which PSMMA is associated with cooperation even without relying entirely on relationship quality, and a relational route in which PSMMA builds trust/satisfaction, which then supports cooperation. This contrasts with a single "mechanism" route. Instead of a pattern in which one link disappears when the mechanism is considered, this pattern is consistent with curves showing separate positive links among the constructs.

According to the proposition that non-transactional outcomes (attitudes/engagement) often precede and enable transactional outcomes (intentions/purchases), behavioral outcomes are best understood as downstream consequences of trust-enabled engagement for the third research objective. In line with recent synthesis calls to model moderators rather than assume universal SMM impacts, the effects for the last research objective are contingent, varying by platform and citizen/context characteristics. To put it differently, the model's positive relationships in this dataset exhibit resilience and remain stable across demographic conditions, indicating consistency rather than segmentation effects.

In line with reviews emphasizing the need for integrated, mechanism-based explanations of the effects of digital transformation in marketing practice of the public sector, the study advances digital marketing by operationalizing a compact causal pathway linking digital touchpoints to citizen/customer decision processes (Bartoloni & Ancillai, 2024; Cioppi et al., 2023). According to Ahmed and Shekhar (2026) and Bartoloni and Ancillai (2024), it plays a crucial role in social media marketing by empirically establishing the logic behind the inputs (contingencies) and outputs, as advocated in the most recent major SMM SLR. This method also aligns the choices made at the platform level with the outcomes of engagement and performance. Finally, it clarifies how citizens, as customers of public services, convert social media stimuli into intention via trust/credibility and engagement mechanisms, patterns that recent meta-analytic evidence in the marketing literature identifies as central to influencer-driven persuasion effects (Pan et al., 2025; Leung et al., 2022). This helps to shape customer behavior of public police organizations and more generally to the public sector.

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Appendix A: “Questionnaire”

COVER LETTER

Dear Madam/Sir,

For the research needs of the dissertation titled "*Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece*", we would like to invite you to participate in our study.

The dissertation is prerequisite for the successful completion of the Master in Business Administration (M.B.A.) Programme of the Hellenic Open University (H.O.U.). The study aims to examine how Greek Police social media marketing activities influence urban citizens' citizenship behaviors through the mediating mechanism of brand relationship quality, by sequentially integrating Social Identity Theory and Social Exchange Theory, while accounting for the moderating effects of educational qualification and age in the urban context.

Based on the survey method, the responses of adult Greek citizens living in urban areas who use social media and are exposed to content posted on official police social media accounts are investigated.

Your participation in this study is of great importance to us. It is completely voluntary, and you have the right to withdraw at any stage. It should only take you a few minutes to complete the survey.

The collected data will be used for the research needs of this dissertation.

Feel free to contact us.

Thank you in advance for your cooperation.

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QUESTIONNAIRE

Section A: Use of Police Social Media

1. Do you use social media? (mark (X) one answer)

☐ Yes

☐ No

[If you answered "No", please do not continue with the questionnaire. Thank you for your time.]

2. Are you aware of the official social media accounts of the Hellenic Police (e.g., Facebook, Instagram, X/Twitter, YouTube)? (mark (X) one answer)

☐ Yes

☐ No

[If you answered "No", please do not continue with the questionnaire. Thank you for your time.]

3. Have you ever viewed content posted on the official social media accounts of the Hellenic Police? (mark (X) one answer)

☐ Yes

☐ No

[If you answered "No", please do not continue with the questionnaire. Thank you for your time.]

4. How often do you view content on the Hellenic Police's social media accounts? (mark (X) one answer)

☐ Daily

☐ Several times a week

☐ Once a week

☐ Several times a month

☐ Rarely

Section B: Demographic Profile of Respondents

5. Please select your gender (mark (X) one answer).

☐ Male

☐ Female

☐ I prefer not to say

6. Please select the age group you belong (mark (X) one answer).

☐ Under 18

☐ 18 - 24

☐ 25 - 34

☐ 35 - 44

☐ 45 - 54

☐ 55 - 64

☐ 65 or over

[If you chose "Under 18", please do not answer the following questions.]

7. Please select the highest level of education you have completed (mark (X) one answer).

☐ Basic Education

☐ Secondary Education

☐ Higher Education

- ☐ Postgraduate Studies
☐ Other

Section C: Police Social Media Marketing Activities - Content Quality

8. The following statements relate to *content quality* of the police's social media accounts. Please indicate to what extent you agree or disagree with the following statements. Please tick (X) one answer for each statement.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The content of the police's social media accounts seems interesting	☐	☐	☐	☐	☐
The information provided on the police's social media accounts was informative	☐	☐	☐	☐	☐
I believe the police's social media accounts are effective in helping me make my decision	☐	☐	☐	☐	☐

Section D: Police Social Media Marketing Activities - Credibility

9. The following statements relate to *credibility* of the police's social media accounts. Please indicate to what extent you agree or disagree with the following statements. Please tick (X) one answer for each statement.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Information shared on the police's social media accounts is credible	☐	☐	☐	☐	☐
Information shared on the police's social media accounts is trustworthy	☐	☐	☐	☐	☐
Information shared on the police's social media accounts is reliable	☐	☐	☐	☐	☐
Information shared on the police's social media accounts is believable	☐	☐	☐	☐	☐

Section E: Police Social Media Marketing Activities - Interaction

10. The following statements relate to *interaction* on the police's social media accounts. Please indicate to what extent you agree or disagree with the following statements. Please tick (X) one answer for each statement.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The police's social media accounts enable information-sharing with others	☐	☐	☐	☐	☐
It is easy to provide my opinion through the police's social media accounts	☐	☐	☐	☐	☐

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Conversation or opinion exchange with others is possible through the police's social media accounts	☐	☐	☐	☐	☐

Section F: Police Social Media Marketing Activities - Word of Mouth

11. The following statements relate to *word of mouth* about the police's social media accounts. Please indicate to what extent you agree or disagree with the following statements. Please tick (X) one answer for each statement.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I would speak positive things about the police's social media accounts	☐	☐	☐	☐	☐
I would recommend the police's social media accounts to my friends	☐	☐	☐	☐	☐
If my friends are looking for information regarding current police-related issues or safety, I would tell them to have a look at the police's social media accounts	☐	☐	☐	☐	☐

Section G: Brand Relationship Quality - Trust

12. The following statements relate to *trust* in the police. Please indicate to what extent you agree or disagree with the following statements. Please tick (X) one answer for each statement.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The police give me a feeling of trust	☐	☐	☐	☐	☐
I have trust in the police	☐	☐	☐	☐	☐
The police give me a trustworthy impression	☐	☐	☐	☐	☐
The police is honest	☐	☐	☐	☐	☐
I have great confidence in the police	☐	☐	☐	☐	☐

Section H: Brand Relationship Quality - Satisfaction

13. The following statements relate to *satisfaction* with the police. Please indicate to what extent you agree or disagree with the following statements. Please tick (X) one answer for each statement.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
As a responsible citizen, I have a high-quality relationship with the police	☐	☐	☐	☐	☐

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am happy with the efforts the police are making towards responsible citizens like me	☐	☐	☐	☐	☐
I am satisfied with the relationship I have with the police	☐	☐	☐	☐	☐
My experiences with the police meet my expectations	☐	☐	☐	☐	☐

Section I: Citizen Citizenship Behaviour

14. The following statements relate to *citizen citizenship behaviour*. Please indicate to what extent you agree or disagree with the following statements. Please tick (X) one answer for each statement.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I assist other citizens if they need my help	☐	☐	☐	☐	☐
I will provide information when asked by the police	☐	☐	☐	☐	☐
I teach other citizens to fulfill their civic duties correctly	☐	☐	☐	☐	☐
I try to keep updated with the latest development of the police	☐	☐	☐	☐	☐
I help the police beyond what I am required to do	☐	☐	☐	☐	☐
I disseminate information about the police that I find useful to others	☐	☐	☐	☐	☐
I give advice to other citizens	☐	☐	☐	☐	☐

Thank you very much for your participation!

ΣΥΝΟΔΕΥΤΙΚΗ ΕΠΙΣΤΟΛΗ

Αξιότιμη κυρία/Αξιότιμε κύριε,

Για τις ερευνητικές ανάγκες της διπλωματικής εργασίας με τίτλο: «*Από την Κοινωνική Ταυτότητα στην Κοινωνική Ανταλλαγή: Ένα Διαδοχικό Θεωρητικό Μοντέλο της Επιρροής του Μάρκετινγκ Μέσων Κοινωνικής Δικτύωσης της Αστυνομίας και της Συμπεριφοράς των Πολιτών στην Αστική Ελλάδα*», θα θέλαμε να σας προσκαλέσουμε να συμμετάσχετε στην έρευνά μας.

Η εκπόνηση της Διπλωματικής Εργασίας αποτελεί βασική προϋπόθεση για την επιτυχή ολοκλήρωση του Μεταπτυχιακού Προγράμματος Σπουδών στη Διοίκηση Επιχειρήσεων (Master in Business Administration - M.B.A.) του Ελληνικού Ανοικτού Πανεπιστημίου (Ε.Α.Π.). Η μελέτη αποσκοπεί στο να προσδιορίσει πως οι δραστηριότητες μάρκετινγκ της Ελληνικής Αστυνομίας στα μέσα κοινωνικής δικτύωσης επηρεάζουν τις συμπεριφορές των πολιτών σε αστικά κέντρα μέσω του διαμεσολαβητικού μηχανισμού της ποιότητας της σχέσης με τον οργανισμό, ενσωματώνοντας διαδοχικά τη Θεωρία της Κοινωνικής Ταυτότητας και τη Θεωρία της Κοινωνικής Ανταλλαγής, λαμβάνοντας υπόψη τις μετριαστικές επιδράσεις του μορφωτικού επιπέδου και της ηλικίας στην αστική Ελλάδα.

Η μελέτη βασίζεται στη μέθοδο της έρευνας και εξετάζει τις απαντήσεις ενηλίκων Ελλήνων πολιτών, που κατοικούν σε αστικές περιοχές, χρησιμοποιούν τα μέσα κοινωνικής δικτύωσης και εκτίθενται σε περιεχόμενο που αναρτάται στους επίσημους λογαριασμούς κοινωνικών δικτύων της Αστυνομίας.

Η συμμετοχή σας στην παρούσα έρευνα έχει σπουδαία αξία για εμάς, είναι πλήρως εθελοντική και διατηρείτε το δικαίωμα να υπαναχωρήσετε οποιαδήποτε στιγμή. Θα χρειαστούν μόνο μερικά λεπτά για να ολοκληρώσετε την έρευνα.

Τα δεδομένα που θα συλλεχθούν θα χρησιμοποιηθούν για τις ερευνητικές ανάγκες της παρούσας διπλωματικής εργασίας.

Μη διστάσετε να επικοινωνήσετε μαζί μας.

Σας ευχαριστούμε εκ των προτέρων για τη συνεργασία σας.

Ζωή Λαζαρίδου

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ΕΡΩΤΗΜΑΤΟΛΟΓΙΟ

Ενότητα Α: Χρήση μέσων κοινωνικής δικτύωσης της Αστυνομίας

1. Χρησιμοποιείτε μέσα κοινωνικής δικτύωσης; (σημειώστε (X) μία απάντηση)

☐ Ναι

☐ Όχι

[Αν απαντήσατε «Όχι», παρακαλούμε μη συνεχίσετε με το ερωτηματολόγιο. Σας ευχαριστούμε για τον χρόνο σας.]

2. Γνωρίζετε τους επίσημους λογαριασμούς κοινωνικών δικτύων της Ελληνικής Αστυνομίας (π.χ. Facebook, Instagram, X/Twitter, YouTube); (σημειώστε (X) μία απάντηση)

☐ Ναι

☐ Όχι

[Αν απαντήσατε «Όχι», παρακαλούμε μη συνεχίσετε με το ερωτηματολόγιο. Σας ευχαριστούμε για τον χρόνο σας.]

3. Έχετε παρακολουθήσει ποτέ περιεχόμενο που αναρτήθηκε στους επίσημους λογαριασμούς κοινωνικών δικτύων της Ελληνικής Αστυνομίας; (σημειώστε (X) μία απάντηση)

☐ Ναι

☐ Όχι

[Αν απαντήσατε «Όχι», παρακαλούμε μη συνεχίσετε με το ερωτηματολόγιο. Σας ευχαριστούμε για τον χρόνο σας.]

4. Πόσο συχνά παρακολουθείτε περιεχόμενο στους επίσημους λογαριασμούς κοινωνικών δικτύων της Ελληνικής Αστυνομίας; (σημειώστε (X) μία απάντηση)

☐ Καθημερινά

☐ Τρεις έως πέντε φορές την εβδομάδα

☐ Μία φορά την εβδομάδα

☐ Τρεις έως πέντε φορές τον μήνα

☐ Λιγότερες από τρεις φορές τον μήνα

Ενότητα Β: Δημογραφικό προφίλ ερωτώμενων

5. Παρακαλούμε επιλέξτε το φύλο σας. (Σημειώστε (X) μία απάντηση).

☐ Άντρας

☐ Γυναίκα

☐ Προτιμώ να μην αναφέρω

6. Παρακαλούμε επιλέξτε την ηλικιακή ομάδα στην οποία ανήκετε. (Σημειώστε (X) μία απάντηση).

☐ Κάτω των 18

☐ 18 - 24

☐ 25 - 34

☐ 35 - 44

☐ 45 - 54

☐ 55 - 64

☐ 65 ή άνω

[Αν επιλέξατε «Κάτω από 18», παρακαλούμε μη συνεχίσετε στις επόμενες ερωτήσεις.]

7. Παρακαλούμε επιλέξτε το υψηλότερο επίπεδο εκπαίδευσης που έχετε ολοκληρώσει (σημειώστε (X) μία απάντηση).

- ☐ Βασική εκπαίδευση
☐ Δευτεροβάθμια εκπαίδευση
☐ Ανώτατη εκπαίδευση
☐ Μεταπτυχιακές σπουδές
☐ Άλλο

8. Σε ποια πόλη διαμένετε; (Σημειώστε (X) μία απάντηση)

- ☐ Αθήνα
☐ Πειραιάς
☐ Θεσσαλονίκη
☐ Πάτρα
☐ Άλλη

[Αν επιλέξατε «Άλλη», παρακαλούμε μη συνεχίσετε στις επόμενες ερωτήσεις.]

Ενότητα Γ: Δραστηριότητες Μάρκετινγκ της Αστυνομίας στα Μέσα Κοινωνικής Δικτύωσης - Ποιότητα Περιεχομένου

9. Οι παρακάτω δηλώσεις σχετίζονται με την ποιότητα του περιεχομένου των λογαριασμών κοινωνικών δικτύων της Αστυνομίας. Παρακαλούμε σημειώστε τον βαθμό συμφωνίας ή διαφωνίας σας για κάθε μία από τις ακόλουθες δηλώσεις. Σημειώστε (X) μία απάντηση σε κάθε δήλωση.

	Διαφωνώ Απόλυτα	Διαφωνώ	Ουδέτερο	Συμφωνώ	Συμφωνώ απόλυτα
Το περιεχόμενο των λογαριασμών κοινωνικών δικτύων της Αστυνομίας φαίνεται ενδιαφέρον	☐	☐	☐	☐	☐
Οι πληροφορίες που παρέχονται στους λογαριασμούς κοινωνικών δικτύων της Αστυνομίας ήταν ενημερωτικές	☐	☐	☐	☐	☐
Πιστεύω ότι οι λογαριασμοί κοινωνικών δικτύων της Αστυνομίας με βοηθούν αποτελεσματικά να πάρω αποφάσεις	☐	☐	☐	☐	☐

Ενότητα Δ: Δραστηριότητες Μάρκετινγκ της Αστυνομίας στα Μέσα Κοινωνικής Δικτύωσης - Αξιοπιστία

10. Οι παρακάτω δηλώσεις σχετίζονται με την αξιοπιστία των λογαριασμών κοινωνικών δικτύων της Αστυνομίας. Παρακαλούμε σημειώστε τον βαθμό συμφωνίας ή διαφωνίας σας για κάθε μία από τις ακόλουθες δηλώσεις. Σημειώστε (X) μία απάντηση σε κάθε δήλωση.

	Διαφωνώ Απόλυτα	Διαφωνώ	Ουδέτερο	Συμφωνώ	Συμφωνώ απόλυτα
Οι πληροφορίες που κοινοποιούνται στους	☐	☐	☐	☐	☐

	Διαφωνώ Απόλυτα	Διαφωνώ	Ουδέτερο	Συμφωνώ	Συμφωνώ απόλυτα
λογαριασμούς κοινωνικών δικτύων της Αστυνομίας είναι αξιόπιστες					
Οι πληροφορίες που κοινοποιούνται στους λογαριασμούς κοινωνικών δικτύων της Αστυνομίας είναι έμπιστες	☐	☐	☐	☐	☐
Οι πληροφορίες που κοινοποιούνται στους λογαριασμούς κοινωνικών δικτύων της Αστυνομίας είναι βάσιμες	☐	☐	☐	☐	☐
Οι πληροφορίες που κοινοποιούνται στους λογαριασμούς κοινωνικών δικτύων της Αστυνομίας είναι αληθοφανείς	☐	☐	☐	☐	☐

Ενότητα Ε: Δραστηριότητες Μάρκετινγκ της Αστυνομίας στα Μέσα Κοινωνικής Δικτύωσης - Αλληλεπίδραση

11. Οι παρακάτω δηλώσεις σχετίζονται με την αλληλεπίδραση στους λογαριασμούς κοινωνικών δικτύων της Αστυνομίας. Παρακαλούμε σημειώστε τον βαθμό συμφωνίας ή διαφωνίας σας για κάθε μία από τις ακόλουθες δηλώσεις. Σημειώστε (X) μία απάντηση σε κάθε δήλωση.

	Διαφωνώ Απόλυτα	Διαφωνώ	Ουδέτερο	Συμφωνώ	Συμφωνώ απόλυτα
Οι λογαριασμοί κοινωνικών δικτύων της Αστυνομίας επιτρέπουν την ανταλλαγή πληροφοριών με άλλους	☐	☐	☐	☐	☐
Είναι εύκολο να εκφράσω την άποψή μου μέσω των λογαριασμών κοινωνικών δικτύων της Αστυνομίας	☐	☐	☐	☐	☐
Η συνομιλία ή η ανταλλαγή απόψεων με άλλους είναι δυνατή μέσω των λογαριασμών κοινωνικών δικτύων της Αστυνομίας	☐	☐	☐	☐	☐

Ενότητα ΣΤ: Δραστηριότητες Μάρκετινγκ της Αστυνομίας στα Μέσα Κοινωνικής Δικτύωσης - Προφορική Διάδοση Πληροφοριών

12. Οι παρακάτω δηλώσεις σχετίζονται με την προφορική διάδοση πληροφοριών στους λογαριασμούς κοινωνικών δικτύων της Αστυνομίας. Παρακαλούμε σημειώστε

τον βαθμό συμφωνίας ή διαφωνίας σας για κάθε μία από τις ακόλουθες δηλώσεις. Σημειώστε (X) μία απάντηση σε κάθε δήλωση.

	Διαφωνώ Απόλυτα	Διαφωνώ	Ουδέτερο	Συμφωνώ	Συμφωνώ απόλυτα
Θα μιλούσα θετικά για τους λογαριασμούς κοινωνικών δικτύων της Αστυνομίας	☐	☐	☐	☐	☐
Θα συνιστούσα τους λογαριασμούς κοινωνικών δικτύων της Αστυνομίας στους φίλους μου	☐	☐	☐	☐	☐
Αν οι φίλοι μου αναζητούν πληροφορίες σχετικά με τρέχοντα θέματα της Αστυνομίας ή την ασφάλεια, θα τους έλεγα να ρίξουν μια ματιά στους λογαριασμούς κοινωνικών δικτύων της Αστυνομίας	☐	☐	☐	☐	☐

Ενότητα Ζ: Ποιότητα Σχέσης με την Αστυνομία - Εμπιστοσύνη

13. Οι παρακάτω δηλώσεις σχετίζονται με την *εμπιστοσύνη* προς την Αστυνομία. Παρακαλούμε σημειώστε τον βαθμό συμφωνίας ή διαφωνίας σας για κάθε μία από τις ακόλουθες δηλώσεις. Σημειώστε (X) μία απάντηση σε κάθε δήλωση.

	Διαφωνώ Απόλυτα	Διαφωνώ	Ουδέτερο	Συμφωνώ	Συμφωνώ απόλυτα
Η Αστυνομία μου δημιουργεί αίσθημα εμπιστοσύνης	☐	☐	☐	☐	☐
Έχω εμπιστοσύνη στην Αστυνομία	☐	☐	☐	☐	☐
Η Αστυνομία μου δίνει την εντύπωση ότι είναι αξιόπιστη	☐	☐	☐	☐	☐
Η Αστυνομία είναι έντιμη	☐	☐	☐	☐	☐
Έχω μεγάλη σιγουριά στην Αστυνομία	☐	☐	☐	☐	☐

Ενότητα Η: Ποιότητα Σχέσης με την Αστυνομία - Ικανοποίηση

14. Οι παρακάτω δηλώσεις σχετίζονται με την *ικανοποίηση* προς την Αστυνομία. Παρακαλούμε σημειώστε τον βαθμό συμφωνίας ή διαφωνίας σας για κάθε μία από τις ακόλουθες δηλώσεις. Σημειώστε (X) μία απάντηση σε κάθε δήλωση.

	Διαφωνώ Απόλυτα	Διαφωνώ	Ουδέτερο	Συμφωνώ	Συμφωνώ απόλυτα
Ως υπεύθυνος πολίτης, έχω μια υψηλής ποιότητας σχέση με την Αστυνομία	☐	☐	☐	☐	☐

	Διαφωνώ Απόλυτα	Διαφωνώ	Ουδέτερο	Συμφωνώ	Συμφωνώ απόλυτα
Είμαι ευχαριστημένος/η με τις προσπάθειες που καταβάλλει η Αστυνομία προς υπεύθυνους πολίτες σαν εμένα	☐	☐	☐	☐	☐
Είμαι ικανοποιημένος/η με τη σχέση που έχω με την Αστυνομία	☐	☐	☐	☐	☐
Οι εμπειρίες μου με την Αστυνομία ανταποκρίνονται στις προσδοκίες μου	☐	☐	☐	☐	☐

Ενότητα Θ: Συμπεριφορά Πολιτειότητας των Πολιτών

15. Οι παρακάτω δηλώσεις σχετίζονται με τη συμπεριφορά πολιτειότητας των πολιτών. Παρακαλούμε σημειώστε τον βαθμό συμφωνίας ή διαφωνίας σας για κάθε μία από τις ακόλουθες δηλώσεις. Σημειώστε (X) μία απάντηση σε κάθε δήλωση.

	Διαφωνώ Απόλυτα	Διαφωνώ	Ουδέτερο	Συμφωνώ	Συμφωνώ απόλυτα
Βοηθώ άλλους πολίτες αν χρειάζονται τη βοήθειά μου	☐	☐	☐	☐	☐
Θα παράσχω πληροφορίες όταν μου ζητηθεί από την Αστυνομία	☐	☐	☐	☐	☐
Καθοδηγώ άλλους να εκπληρώνουν σωστά τις υποχρεώσεις τους ως πολίτες	☐	☐	☐	☐	☐
Προσπαθώ να ενημερώνομαι για τις τελευταίες εξελίξεις σχετικά με την Αστυνομία	☐	☐	☐	☐	☐
Βοηθώ την Αστυνομία πέρα από τα υποχρεωτικά μου καθήκοντα	☐	☐	☐	☐	☐
Διαδίδω σε άλλους πληροφορίες για την Αστυνομία που θεωρώ χρήσιμες	☐	☐	☐	☐	☐
Δίνω συμβουλές σε άλλους πολίτες	☐	☐	☐	☐	☐

Σας ευχαριστούμε πολύ για τη συμμετοχή σας!

Appendix B: “Tables and Figures”

Frequency for Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	163	50.0	50.0	50.0
Female	157	48.2	48.2	98.2
I prefer not to say	6	1.8	1.8	100.0
Total	326	100.0	100.0	

Table B-7: Distribution of respondents by gender
Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

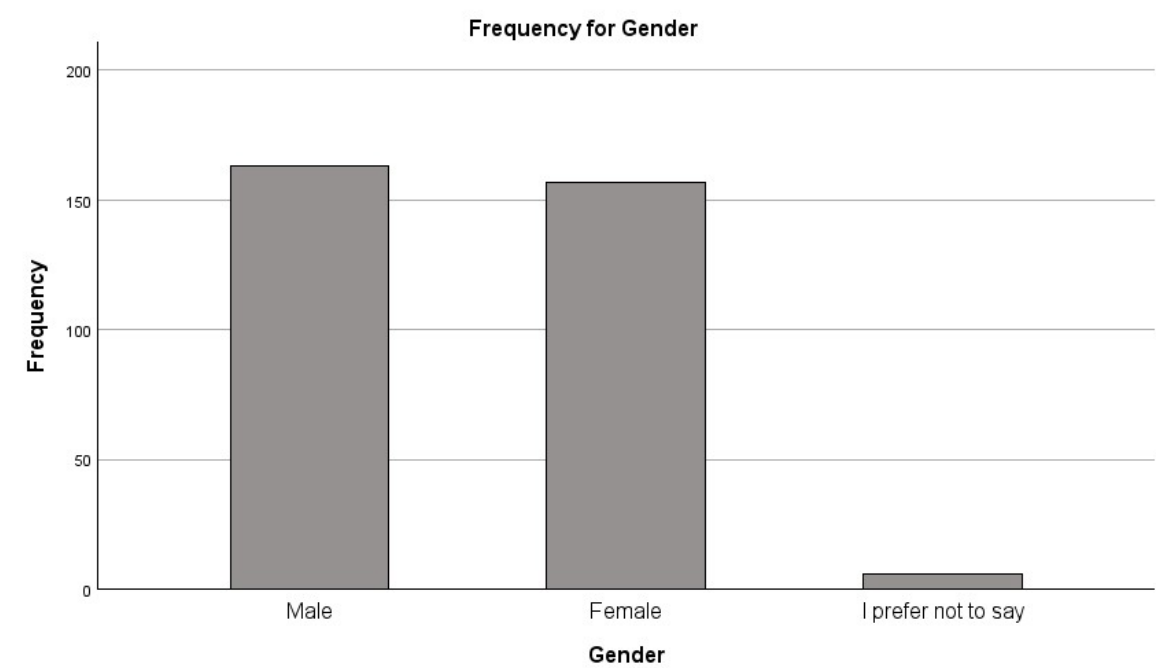


Figure B.6: Distribution of respondents by gender
Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Frequency for Age group

	Frequency	Percent	Valid Percent	Cumulative Percent
18 - 24	13	4.0	4.0	4.0
25 - 34	42	12.9	12.9	16.9
35 - 44	155	47.5	47.5	64.4
45 - 54	82	25.2	25.2	89.6
55 - 64	22	6.7	6.7	96.3
65 or over	12	3.7	3.7	100.0
Total	326	100.0	100.0	

Table B-8: Distribution of respondents by Age group

Source: Lazaridou, Z. (2026) "Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece"

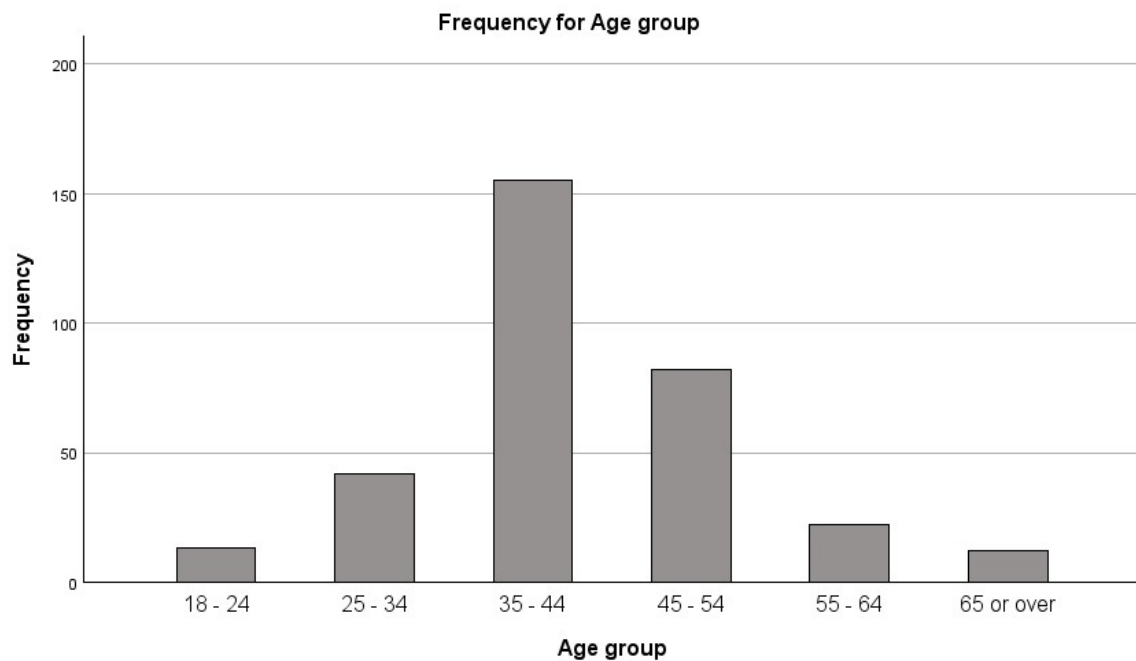


Figure B.7: Distribution of respondents by Age group

Source: Lazaridou, Z. (2026) "Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece"

Frequency for Education

	Frequency	Percent	Valid Percent	Cumulative Percent
Basic Education	12	3.7	3.7	3.7
Secondary Education	82	25.2	25.2	28.8
Higher Education	122	37.4	37.4	66.3
Postgraduate Studies	104	31.9	31.9	98.2

Other	6	1.8	1.8	100.0
Total	326	100.0	100.0	

Table B-9: Distribution of respondents by Level of Education

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

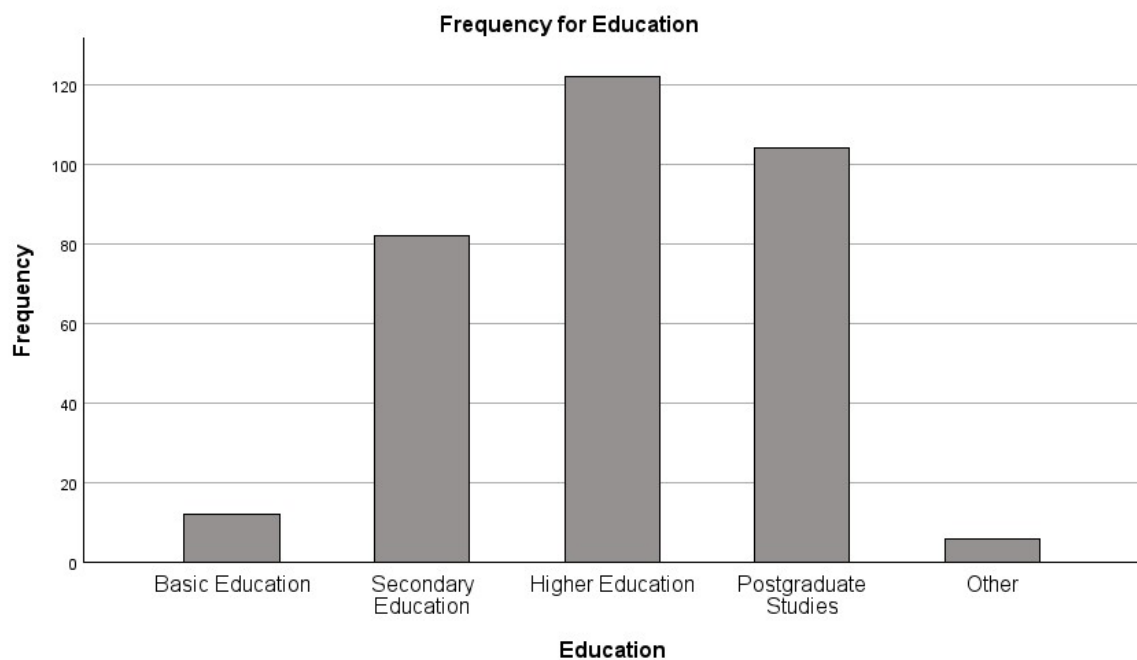


Figure B.8: Distribution of respondents by Level of Education

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Frequency for City

	Frequency	Percent	Valid Percent	Cumulative Percent
Athens	210	64.4	64.4	64.4
Piraeus	32	9.8	9.8	74.2
Thessaloniki	80	24.5	24.5	98.8
Patras	4	1.2	1.2	100.0
Total	326	100.0	100.0	

Table B-10: Distribution of respondents by City of Residence

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

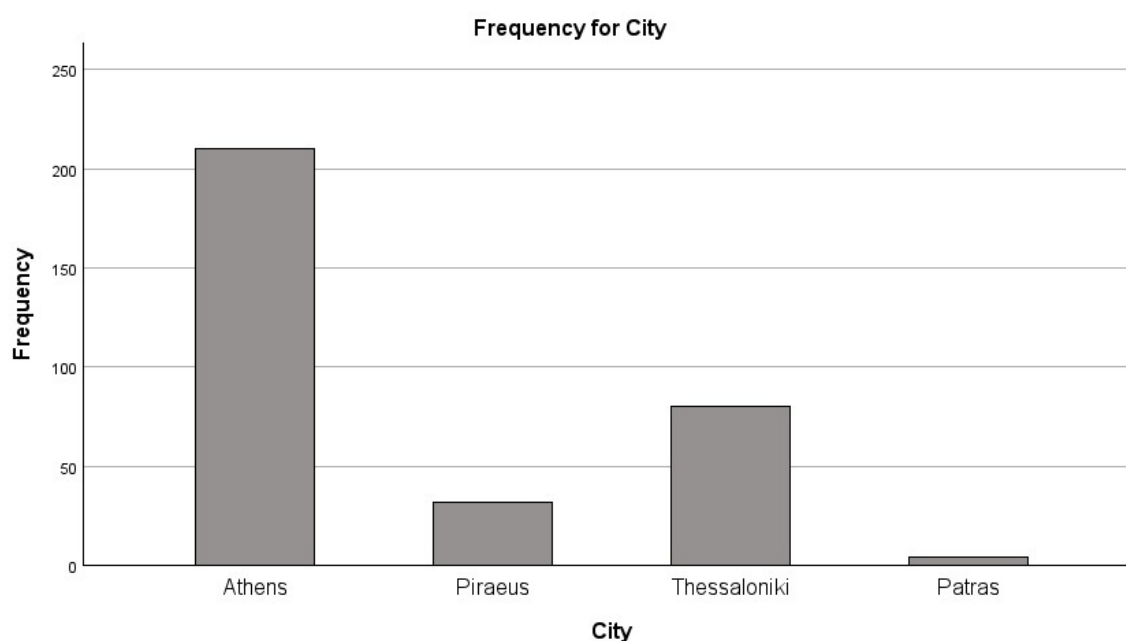


Figure B.9: Distribution of respondents by City of Residence

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Frequency for Regularity

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than three times a month	144	44.2	44.2	44.2
Three to five times a month	45	13.8	13.8	58.0
Once a week	65	19.9	19.9	77.9
Three to five times a week	39	12.0	12.0	89.9
Daily	33	10.1	10.1	100.0
Total	326	100.0	100.0	

Table B-11: Distribution of respondents by Regularity of Content Viewing

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

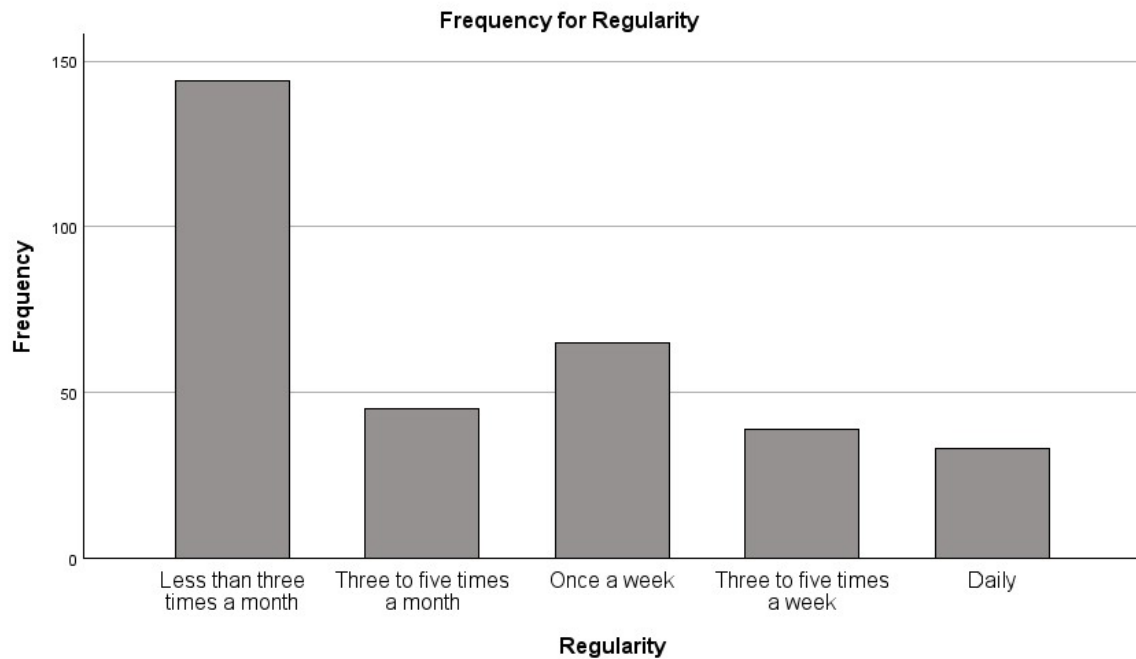


Figure B.10: Distribution of respondents by Regularity of Content Viewing

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Descriptive Statistics for Constructed Variables

Descriptive Statistics		PSMMA	BRQ	CCB
Valid		326	326	326
Missing		0	0	0
Mean		3.548	3.460	3.888
Std. Error of Mean		0.037	0.051	0.038
Median		3.615	3.556	4.000
Std. Deviation		0.663	0.918	0.689
Variance		0.440	0.843	0.475
Skewness		-0.936	-0.544	-0.823
Std. Error of Skewness		0.135	0.135	0.135
Kurtosis		2.160	0.188	2.393
Std. Error of Kurtosis		0.269	0.269	0.269
Range		4.000	4.000	4.000
Minimum		1.000	1.000	1.000
Maximum		5.000	5.000	5.000
Percentiles	25	3.231	3.000	3.536
	50	3.615	3.556	4.000
	75	4.000	4.000	4.286

Table B-12: Descriptive statistics of response data for construct variables

(PSMMA: Police Social Media Marketing Activities, BRQ: Brand Relationship Quality, CCB: Citizen Citizenship Behaviour)

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Histogram and Q-Q plot for Constructed Variables

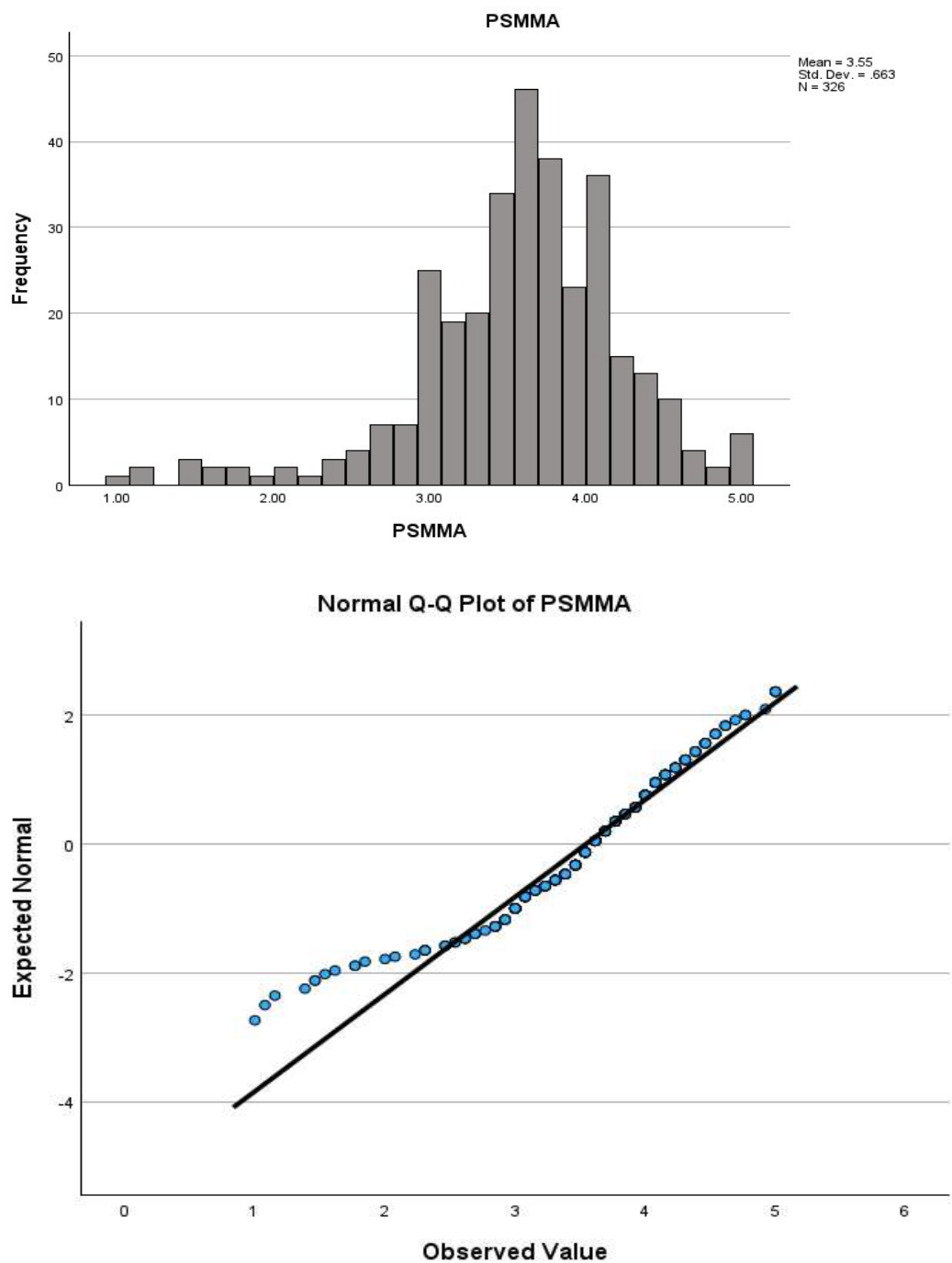


Figure B.6: Histogram and Q-Q plot of response data for construct PSMMA: Police Social Media Marketing Activities

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

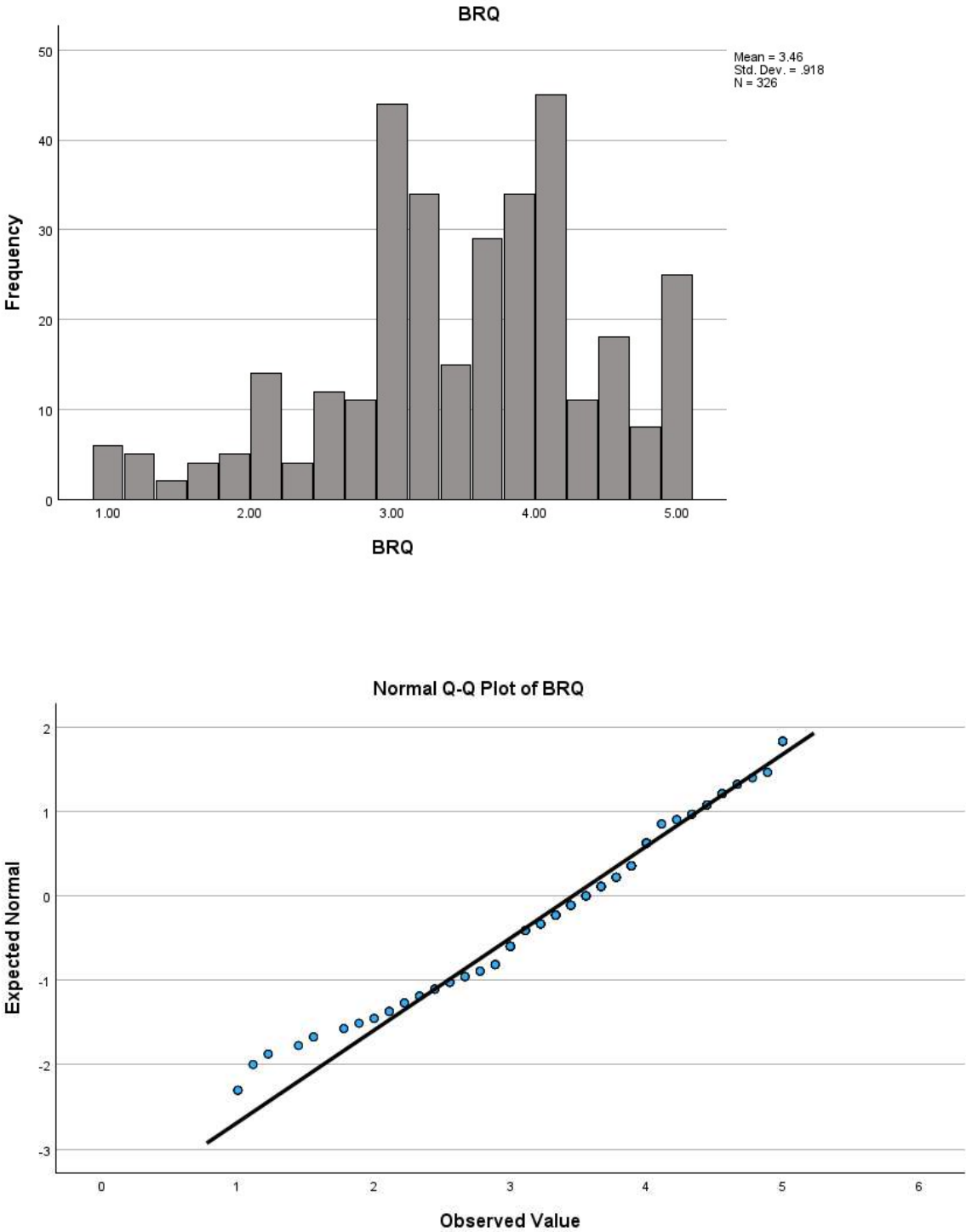


Figure B.7: Histogram and Q-Q plot of response data for construct BRQ: Brand Relationship Quality

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

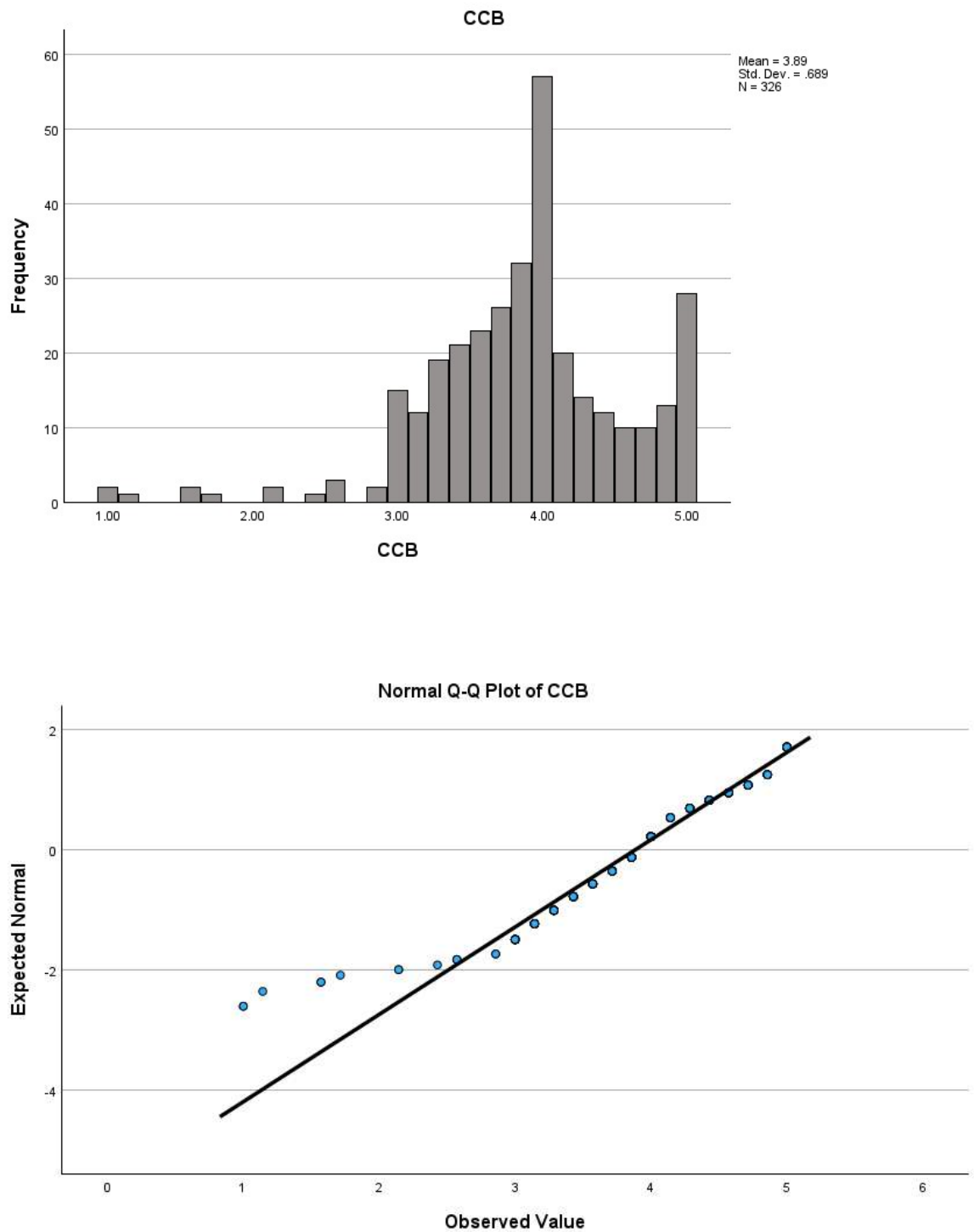


Figure B.8: Histogram and Q-Q plot of response data for construct CCB: Citizen Citizenship Behaviour
Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Frequencies for Police Social Media Marketing Activities

1. Content Quality

The content of the police's social media accounts seems interesting.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	10	2.6	3.1	3.1
	Disagree	16	4.1	4.9	8.0
	Neutral	96	24.6	29.4	37.4
	Agree	170	43.6	52.1	89.6
	Strongly Agree	34	8.7	10.4	100.0
	Total	326	83.6	100.0	

Table B-7: Distribution of respondents in the question: “The content of the police's social media accounts seems interesting”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

The information provided on the police's social media accounts was informative.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	12	3.1	3.7	3.7
	Disagree	11	2.8	3.4	7.1
	Neutral	60	15.4	18.4	21.5
	Agree	193	49.5	59.2	80.7
	Strongly Agree	50	12.8	15.3	96.0
	Total	326	83.6	100.0	

Table B-8: Distribution of respondents in the question: “The information provided on the police's social media accounts was informative”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

I believe the police's social media accounts are effective in helping me make my decision.

	Frequency	Percent	Valid Percent	Cumulative Percent
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	Strongly Disagree	25	6.4	7.7	7.7
	Disagree	49	12.6	15.0	22.7
	Neutral	139	35.6	42.6	65.3
	Agree	87	22.3	26.7	92.0
	Strongly Agree	26	6.7	8.0	100.0
	Total	326	83.6	100.0	

Table B-9: Distribution of respondents in the question: “I believe the police’s social media accounts are effective in helping me make my decision”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

2. Credibility

Information shared on the police’s social media accounts is credible.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	11	2.8	3.4	3.4
	Disagree	16	4.1	4.9	8.3
	Neutral	68	17.4	20.9	29.1
	Agree	155	39.7	47.5	76.7
	Strongly Agree	76	19.5	23.3	100.0
	Total	326	83.6	100.0	

Table B-10: Distribution of respondents in the question: “Information shared on the police’s social media accounts is credible”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Information shared on the police’s social media accounts is trustworthy.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	10	2.6	3.1	3.1
	Disagree	14	3.6	4.3	7.4

	Neutral	77	19.7	23.6	31.0
	Agree	157	40.3	48.2	79.1
	Strongly Agree	68	17.4	20.9	100.0
	Total	326	83.6	100.0	

Table B-11: Distribution of respondents in the question: “Information shared on the police's social media accounts is trustworthy”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Information shared on the police's social media accounts is reliable.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	8	2.1	2.5	2.5
	Disagree	14	3.6	4.3	6.7
	Neutral	61	15.6	18.7	25.5
	Agree	175	44.9	53.7	79.1
	Strongly Agree	68	17.4	20.9	100.0
	Total	326	83.6	100.0	

Table B-12: Distribution of respondents in the question: “Information shared on the police's social media accounts is reliable”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Information shared on the police's social media accounts is believable.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	11	2.8	3.4	3.4
	Disagree	19	4.9	5.8	9.2
	Neutral	78	20.0	23.9	33.1
	Agree	160	41.0	49.1	82.2
	Strongly Agree	58	14.9	17.8	100.0
	Total	326	83.6	100.0	

Table B-13: Distribution of respondents in the question: “Information shared on the police's social media accounts is believable”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

3. Interaction

The police's social media accounts enable information-sharing with others.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	9	2.3	2.8	2.8
	Disagree	36	9.2	11.0	13.8
	Neutral	140	35.9	42.9	56.7
	Agree	122	31.3	37.4	94.2
	Strongly Agree	19	4.9	5.8	100.0
	Total	326	83.6	100.0	

Table B-14: Distribution of respondents in the question: “The police's social media accounts enable information-sharing with others”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

It is easy to provide my opinion through the police's social media accounts.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	12	3.1	3.7	3.7
	Disagree	58	14.9	17.8	21.5
	Neutral	132	33.8	40.5	62.0
	Agree	109	27.9	33.4	95.4
	Strongly Agree	15	3.8	4.6	100.0
	Total	326	83.6	100.0	

Table B-15: Distribution of respondents in the question: “It is easy to provide my opinion through the police’s social media accounts”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Conversation or opinion exchange with others is possible through the police’s social media accounts.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	13	3.3	4.0	4.0
	Disagree	50	12.8	15.3	19.3
	Neutral	139	35.6	42.6	62.0
	Agree	109	27.9	33.4	95.4
	Strongly Agree	15	3.8	4.6	100.0
	Total	326	83.6	100.0	

Table B-16: Distribution of respondents in the question: “Conversation or opinion exchange with others is possible through the police’s social media accounts”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

4. Word of Mouth

I would speak positive things about the police’s social media accounts.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	7	1.8	2.1	2.1
	Disagree	21	5.4	6.4	8.6
	Neutral	106	27.2	32.5	41.1
	Agree	161	41.3	49.4	90.5
	Strongly Agree	31	7.9	9.5	100.0
	Total	326	83.6	100.0	

Table B-17: Distribution of respondents in the question: “I would speak positive things about the police’s social media accounts”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

I would recommend the police's social media accounts to my friends.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	12	3.1	3.7	3.7
	Disagree	28	7.2	8.6	12.3
	Neutral	113	29.0	34.7	46.9
	Agree	141	36.2	43.3	90.2
	Strongly Agree	32	8.2	9.8	100.0
	Total	326	83.6	100.0	

Table B-18: Distribution of respondents in the question: “I would recommend the police's social media accounts to my friends”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

If my friends are looking for information regarding current police-related issues or safety, I would tell them to have a look at the police's social media accounts.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	12	3.1	3.7	3.7
	Disagree	31	7.9	9.5	13.2
	Neutral	59	15.1	18.1	31.3
	Agree	183	46.9	56.1	87.4
	Strongly Agree	41	10.5	12.6	100.0
	Total	326	83.6	100.0	

Table B-19: Distribution of respondents in the question: “If my friends are looking for information regarding current police-related issues or safety, I would tell them to have a look at the police's social media accounts”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Frequencies for Brand Relationship Quality

1. Trust

The police give me a feeling of trust.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	12	3.1	3.7	3.7
	Disagree	36	9.2	11.0	14.7
	Neutral	89	22.8	27.3	42.0
	Agree	135	34.6	41.4	83.4
	Strongly Agree	54	13.8	16.6	100.0
	Total	326	83.6	100.0	

Table B-20: Distribution of respondents in the question: “The police give me a feeling of trust”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

I have trust in the police.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	20	5.1	6.1	6.1
	Disagree	26	6.7	8.0	14.1
	Neutral	89	22.8	27.3	41.4
	Agree	133	34.1	40.8	82.2
	Strongly Agree	58	14.9	17.8	100.0
	Total	326	83.6	100.0	

Table B-21: Distribution of respondents in the question: “I have trust in the police”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

The police give me a trustworthy impression.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	16	4.1	4.9	4.9
	Disagree	43	11.0	13.2	18.1
	Neutral	87	22.3	26.7	44.8
	Agree	129	33.1	39.6	84.4
	Strongly Agree	51	13.1	15.6	100.0
	Total	326	83.6	100.0	

Table B-22: Distribution of respondents in the question: “The police give me a trustworthy impression”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

The police is honest.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	15	3.8	4.6	4.6
	Disagree	41	10.5	12.6	17.2
	Neutral	122	31.3	37.4	54.6
	Agree	107	27.4	32.8	87.4
	Strongly Agree	41	10.5	12.6	100.0
	Total	326	83.6	100.0	

Table B-23: Distribution of respondents in the question: “The police is honest”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

I have great confidence in the police.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	22	5.6	6.7	6.7
	Disagree	42	10.8	12.9	19.6
	Neutral	111	28.5	34.0	53.7
	Agree	109	27.9	33.4	87.1
	Strongly Agree	42	10.8	12.9	100.0
	Total	326	83.6	100.0	

Table B-24: Distribution of respondents in the question: “I have great confidence in the police”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

1. Satisfaction

As a responsible citizen, I have a high-quality relationship with the police.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	12	3.1	3.7	3.7
	Disagree	29	7.4	8.9	12.6
	Neutral	102	26.2	31.3	43.9
	Agree	134	34.4	41.1	85.0
	Strongly Agree	49	12.6	15.0	100.0
	Total	326	83.6	100.0	

Table B-25: Distribution of respondents in the question: “As a responsible citizen, I have a high-quality relationship with the police”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

I am happy with the efforts the police are making towards responsible citizens like me.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	22	5.6	6.7	6.7
	Disagree	34	8.7	10.4	17.2
	Neutral	98	25.1	30.1	47.2
	Agree	133	34.1	40.8	88.0
	Strongly Agree	39	10.0	12.0	100.0
	Total	326	83.6	100.0	

Table B-26: Distribution of respondents in the question: “I am happy with the efforts the police are making towards responsible citizens like me”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

I am satisfied with the relationship I have with the police.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	18	4.6	5.5	5.5
	Disagree	19	4.9	5.8	11.3
	Neutral	102	26.2	31.3	42.6
	Agree	145	37.2	44.5	87.1
	Strongly Agree	42	10.8	12.9	100.0
	Total	326	83.6	100.0	

Table B-27: Distribution of respondents in the question: “I am satisfied with the relationship I have with the police”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

My experiences with the police meet my expectations.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	23	5.9	7.1	7.1
	Disagree	33	8.5	10.1	17.2
	Neutral	110	28.2	33.7	50.9
	Agree	123	31.5	37.7	88.7
	Strongly Agree	37	9.5	11.3	100.0
	Total	326	83.6	100.0	

Table B-28: Distribution of respondents in the question: “My experiences with the police meet my expectations”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Frequencies for Citizen Citizenship Behaviour

I assist other citizens if they need my help.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	5	1.3	1.5	1.5
	Disagree	2	.5	.6	2.1

	Neutral	30	7.7	9.2	11.3
	Agree	181	46.4	55.5	66.9
	Strongly Agree	108	27.7	33.1	100.0
	Total	326	83.6	100.0	

Table B-29: Distribution of respondents in the question: “I assist other citizens if they need my help”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

I will provide information when asked by the police.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	6	1.5	1.8	1.8
	Disagree	1	.3	.3	2.1
	Neutral	26	6.7	8.0	10.1
	Agree	162	41.5	49.7	59.8
	Strongly Agree	131	33.6	40.2	100.0
	Total	326	83.6	100.0	

Table B-30: Distribution of respondents in the question: “I will provide information when asked by the police”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

I teach other citizens to fulfill their civic duties correctly.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	6	1.5	1.8	1.8
	Disagree	5	1.3	1.5	3.4
	Neutral	54	13.8	16.6	19.9
	Agree	175	44.9	53.7	73.6
	Strongly Agree	86	22.1	26.4	100.0
	Total	326	83.6	100.0	

Table B-31: Distribution of respondents in the question: “I teach other citizens to fulfill their civic duties correctly”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

I try to keep updated with the latest development of the police.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	7	1.8	2.1	2.1
	Disagree	23	5.9	7.1	9.2
	Neutral	85	21.8	26.1	35.3
	Agree	153	39.2	46.9	82.2
	Strongly Agree	58	14.9	17.8	100.0
	Total	326	83.6	100.0	

Table B-32: Distribution of respondents in the question: “I try to keep updated with the latest development of the police”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

I help the police beyond what I am required to do.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	10	2.6	3.1	3.1
	Disagree	31	7.9	9.5	12.6
	Neutral	115	29.5	35.3	47.9
	Agree	113	29.0	34.7	82.5
	Strongly Agree	57	14.6	17.5	100.0
	Total	326	83.6	100.0	

Table B-33: Distribution of respondents in the question: “I help the police beyond what I am required to do”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

I disseminate information about the police that I find useful to others.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	10	2.6	3.1	3.1
	Disagree	22	5.6	6.7	9.8
	Neutral	82	21.0	25.2	35.0
	Agree	150	38.5	46.0	81.0
	Strongly Agree	62	15.9	19.0	100.0
	Total	326	83.6	100.0	

Table B-34: Distribution of respondents in the question: “I disseminate information about the police that I find useful to others”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

I give advice to other citizens.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	8	2.1	2.5	2.5
	Disagree	14	3.6	4.3	6.7
	Neutral	78	20.0	23.9	30.7
	Agree	162	41.5	49.7	80.4
	Strongly Agree	64	16.4	19.6	100.0
	Total	326	83.6	100.0	

Table B-35: Distribution of respondents in the question: “I give advice to other citizens”

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Model fit

Chi-square test

Model	X ²	df	p
Baseline model	9502.527	406	
Factor model	864.816	356	< .001

Fit indices

Index	Value
Comparative Fit Index (CFI)	0.944
Tucker-Lewis Index (TLI)	0.936
Bentler-Bonett Non-normed Fit Index (NNFI)	0.936
Bentler-Bonett Normed Fit Index (NFI)	0.909
Parsimony Normed Fit Index (PNFI)	0.797
Bollen's Relative Fit Index (RFI)	0.896
Bollen's Incremental Fit Index (IFI)	0.944
Relative Noncentrality Index (RNI)	0.944

Other fit measures

Metric	Value
Root mean square error of approximation (RMSEA)	0.066
RMSEA 90% CI lower bound	0.061
RMSEA 90% CI upper bound	0.072
RMSEA p-value	1.764×10^{-6}
Standardized root mean square residual (SRMR)	0.046
Hoelter's critical N ($\alpha = .05$)	152.2
Hoelter's critical N ($\alpha = .01$)	159.7
Goodness of fit index (GFI)	0.963
McDonald fit index (MFI)	0.458
Expected cross validation index (ECVI)	3.315

Table B-36: Confirmatory factor analysis (CFA) - Fit Indices

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Factor loadings

Factor	Indicator	Std. estimate	Std. Error	z-value	p	95% Confidence Interval	
						Lower	Upper
PSMMACO	PSMMACO1	0.871	0.018	48.01	< .001	0.836	0.907
	PSMMACO2	0.834	0.021	39.37	< .001	0.793	0.876
	PSMMACO3	0.760	0.027	28.10	< .001	0.707	0.813
PSMMACR	PSMMACR1	0.924	0.010	88.73	< .001	0.904	0.945
	PSMMACR2	0.933	0.010	96.05	< .001	0.914	0.952
	PSMMACR3	0.913	0.012	78.12	< .001	0.890	0.936
	PSMMACR4	0.694	0.030	22.87	< .001	0.635	0.754
PSMMAI	PSMMAI1	0.706	0.033	21.65	< .001	0.642	0.770
	PSMMAI2	0.877	0.022	40.47	< .001	0.835	0.920

Factor loadings

Factor	Indicator	Std. estimate	Std. Error	z- value	p	95% Confidence Interval	
						Lower	Upper
PSMMAW	PSMMAI3	0.856	0.022	38.07	< .001	0.812	0.900
	PSMMAW1	0.906	0.014	66.69	< .001	0.879	0.933
	PSMMAW2	0.905	0.014	66.15	< .001	0.879	0.932
	PSMMAW3	0.789	0.023	33.60	< .001	0.743	0.835
BRQT	BRQT1	0.936	0.008	117.3	< .001	0.921	0.952
	BRQT2	0.946	0.007	133.4	< .001	0.932	0.959
	BRQT3	0.928	0.009	107.0	< .001	0.911	0.945
	BRQT4	0.898	0.012	76.73	< .001	0.875	0.921
	BRQT5	0.930	0.009	108.1	< .001	0.914	0.947
BRQS	BRQS1	0.863	0.016	54.52	< .001	0.832	0.894
	BRQS2	0.918	0.011	84.90	< .001	0.897	0.939
	BRQS3	0.926	0.010	91.16	< .001	0.906	0.946
	BRQS4	0.884	0.014	63.84	< .001	0.857	0.911
CCB	CCB1	0.632	0.037	17.12	< .001	0.560	0.705
	CCB2	0.737	0.029	25.33	< .001	0.680	0.794
	CCB3	0.798	0.024	33.60	< .001	0.751	0.845
	CCB4	0.757	0.027	27.93	< .001	0.704	0.810
	CCB5	0.797	0.024	33.19	< .001	0.750	0.844

Factor loadings

Factor	Indicator	Std. estimate	Std. Error	z-value	p	95% Confidence Interval	
						Lower	Upper
	CCB6	0.770	0.026	29.72	< .001	0.719	0.821
	CCB7	0.773	0.025	30.33	< .001	0.723	0.823

Table B-37: Confirmatory factor analysis – factor loadings

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Factor Covariances

							95% Confidence Interval	
							Lower	Upper
			Std. estimate	Std. Error	z-value	p		
PSMMA	↔	BRQ	0.827	0.020	40.90	< .001	0.788	0.867
PSMMA	↔	CCB	0.689	0.034	20.21	< .001	0.622	0.755
BRQ	↔	CCB	0.633	0.037	17.03	< .001	0.560	0.705

Table B-38: Confirmatory factor analysis – factor covariances

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Factor variances

Factor	Std. estimate	Std. Error	z-value	p	95% Confidence Interval	
					Lower	Upper
PSMMA	1.000	0.000			1.000	1.000
BRQ	1.000	0.000			1.000	1.000
CCB	1.000	0.000			1.000	1.000

Table B-39: Confirmatory factor analysis - Factor Variances

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Factor	Mean Estimate Value
PSMMACO	0.822
PSMMACR	0.866
PSMMAI	0.813
PSMMAW	0.867
BRQT	0.928
BRQS	0.898
CCB	0.752
All Factors	0.841

Table B-40: Confirmatory factor analysis - Mean Estimate Value for Constructed Variables

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Average variance extracted

Factor	AVE
PSMMA	0.507
BRQ	0.770
CCB	0.578

Table B-41: Confirmatory factor analysis – factor average variance extracted

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Construct	Questionnaire items	Cronbach’s Alpha α	McDonald's ω
PSMMA	PSMMACO1–PSMMAW3	0.927	0.929
BRQ	BRQT1–BRQS4	0.968	0.969
CCB	CCB1–CCB7	0.900	0.904

Table B-42: Results summary of reliability analysis

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Correlation Analysis

Correlations					
			PSMMA	BRQ	CCB
Spearman's rho	PSMMA	Correlation Coefficient	1.000	.739**	.575**
		Sig. (2-tailed)	.	<.001	<.001
		N	326	326	326
	BRQ	Correlation Coefficient	.739**	1.000	.568**
		Sig. (2-tailed)	<.001	.	<.001
		N	326	326	326
	CCB	Correlation Coefficient	.575**	.568**	1.000
		Sig. (2-tailed)	<.001	<.001	.
		N	326	326	326

** . Correlation is significant at the 0.01 level (2-tailed).

Table B-43: Spearman coefficients

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Run MATRIX procedure:

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This version of PROCESS requires SPSS version 26 or later
Workshop schedule available at haskayne.ucalgary.ca/CCRAM
In SPSS 29 and later, change default output font to Courier New for tidier
output. More information about PROCESS at
processmacro.org/faq.html.
This beta release has not been completely tested. Use at
your own risk.

***** PROCESS Procedure for SPSS Version 5.0

Written by Andrew F. Hayes, Ph.D.
www.afhayes.com
Documentation available in Hayes (2022).
www.guilford.com/p/hayes3

Model: 4
Y: CCB
X: PSMMA

```

M: BRQ

Sample
Size: 326

*****
*****

OUTCOME VARIABLE:
BRQ

Model Summary
      R      R-sq      MSE      F      df1
df2    p
.7706   .5938   .3437  473.6155  1.0000
324.0000 .0000

Model
      coeff      se      t      p
LLCI      ULCI
constant  -.3263   .1770  -1.8434  .0662  -
.6745     .0219
PSMMA     1.0674   .0490  21.7627  .0000
.9709     1.1639

*****
*****

OUTCOME VARIABLE:
CCB

Model Summary
      R      R-sq      MSE      F      df1
df2    p
.6655   .4429   .2660  128.4034  2.0000
323.0000 .0000

Model
      coeff      se      t      p
LLCI      ULCI
constant  1.5742   .1565  10.0561  .0000
1.2662    1.8822
PSMMA     .4631   .0677   6.8397  .0000
.3299     .5963
BRQ        .1939   .0489   3.9661  .0001
.0977     .2900

***** DIRECT AND INDIRECT EFFECTS OF X ON Y
*****

```

Direct effect of X on Y					
	Effect	se	t	p	LLCI
ULCI					
	.4631	.0677	6.8397	.0000	.3299
	.5963				
Indirect effect(s) of X on Y:					
	Effect	BootSE	BootLLCI	BootULCI	
BRQ	.2069	.0634	.0786	.3280	
***** ANALYSIS NOTES AND ERRORS					

Level of confidence for all confidence intervals in output:					
95.0000					
Number of bootstrap samples for percentile bootstrap					
confidence intervals:					
5000					
----- END MATRIX -----					

Table B-44: Mediation effect of BRQ on the relationship between PSMMA and CCB

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Run MATRIX procedure:

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This version of PROCESS requires SPSS version 26 or later

Workshop schedule available at haskayne.ualgary.ca/CCRAM

In SPSS 29 and later, change default output font to Courier New for tidier output. More information about PROCESS at processmacro.org/faq.html.

This beta release has not been completely tested. Use at your own risk.

***** PROCESS Procedure for SPSS Version 5.0 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com

Documentation available in Hayes (2022). www.guilford.com/p/hayes3

```

*****
***
Model: 1
Y: CCB
X: BRQ
W: educ

Sample
Size: 326

*****
***

OUTCOME VARIABLE:
CCB

Model Summary
      R    R-sq   MSE     F   df1   df2    p
    .6093   .3712   .3011  63.3735  3.0000 322.0000   .0000

Model
      coeff    se     t     p   LLCI   ULCI
constant  1.9104   .4341  4.4004   .0000  1.0563  2.7645
BRQ        .6175   .1203  5.1327   .0000   .3808   .8542
educ       .1360   .1342  1.0134   .3116  -.1280   .4000
Int_1     -.0548   .0374 -1.4632   .1444  -.1284   .0189

Product terms key:
Int_1 :    BRQ    x    educ

Test(s) of highest order unconditional interaction(s):
      R2-chng     F   df1   df2    p
X*W    .0042   2.1409  1.0000 322.0000   .1444

***** ANALYSIS NOTES AND ERRORS
*****

Level of confidence for all confidence intervals in output:
95.0000

----- END MATRIX -----

```

Table B-45: Moderation effect of Education on the relationship between Brand Relationship Quality and Citizen Citizenship Behaviour

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Run MATRIX procedure:

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This version of PROCESS requires SPSS version 26 or later

Workshop schedule available at haskayne.ucalgary.ca/CCRAM

In SPSS 29 and later, change default output font to Courier New for tidier output. More information about PROCESS at processmacro.org/faq.html.

This beta release has not been completely tested. Use at your own risk.

***** PROCESS Procedure for SPSS Version 5.0 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com

Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model: 1

Y: BRQ

X: PSMMA

W: age

Sample

Size: 326

OUTCOME VARIABLE:

BRQ

Model Summary

R	R-sq	MSE	F	df1	df2	p
.7734	.5981	.3421	159.7176	3.0000	322.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	-.5389	.7024	-.7673	.4435	-1.9208	.8430
PSMMA	1.0562	.1953	5.4080	.0000	.6719	1.4404
age	.0593	.1569	.3781	.7056	-.2494	.3681
Int_1	-.0001	.0431	-.0029	.9977	-.0849	.0846

Product terms key:

Int_1 : PSMMA x age

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	.0000	.0000	1.0000	322.0000	.9977

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95.0000

----- END MATRIX -----

Table B-46: Moderation effect of Age with VR on the relationship between Police Social Media Marketing Activities and Brand Relationship Quality

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.771 ^a	.594	.593	.58622

a. Predictors: (Constant), PSMMA

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	162.759	1	162.759	473.616	<.001 ^b
	Residual	111.343	324	.344		
	Total	274.102	325			

a. Dependent Variable: BRQ

b. Predictors: (Constant), PSMMA

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.326	.177		-1.843	.066
	PSMMA	1.067	.049	.771	21.763	<.001

a. Dependent Variable: BRQ

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.645 ^a	.416	.414	.52734

a. Predictors: (Constant), PSMMA

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	64.124	1	64.124	230.593	<.001 ^b
	Residual	90.099	324	.278		
	Total	154.224	325			

a. Dependent Variable: CCB

b. Predictors: (Constant), PSMMA

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.511	.159		9.489	<.001
	PSMMA	.670	.044	.645	15.185	<.001

a. Dependent Variable: CCB

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.602 ^a	.362	.360	.55098

a. Predictors: (Constant), BRQ

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	55.865	1	55.865	184.023	<.001 ^b
	Residual	98.359	324	.304		
	Total	154.224	325			

a. Dependent Variable: CCB

b. Predictors: (Constant), BRQ

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.326	.119		19.520	<.001
	BRQ	.451	.033	.602	13.566	<.001

a. Dependent Variable: CCB

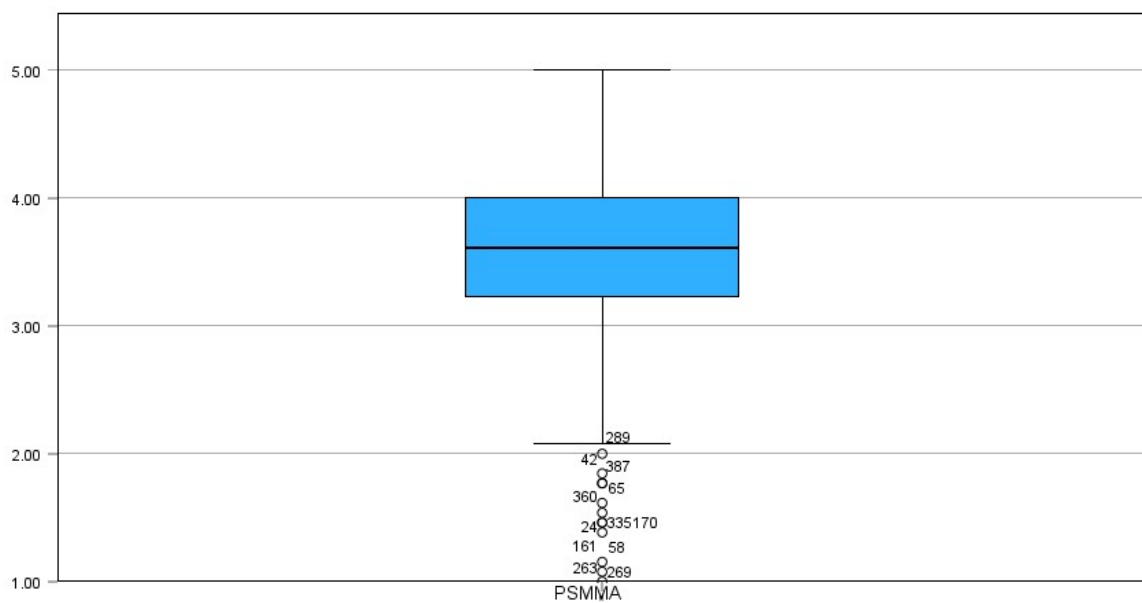
Table B-47: Regression models summaries

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Correlations					Correlations				
		PSMMA	BRQ	CCB			PSMMA	BRQ	CCB
PSMMA	Pearson Correlation	1,00	.771**	.645**	PSMMA	Correlation Coefficient	1,00	.739**	.575**
	Sig. (2-tailed)		0,00	0,00		Sig. (2-tailed)		0,00	0,00
	N	326,00	326,00	326,00		N	326,00	326,00	326,00
BRQ	Pearson Correlation	.771**	1,00	.602**	BRQ	Correlation Coefficient	.739**	1,00	.568**
	Sig. (2-tailed)	0,00		0,00		Sig. (2-tailed)	0,00		0,00
	N	326,00	326,00	326,00		N	326,00	326,00	326,00
CCB	Pearson Correlation	.645**	.602**	1,00	CCB	Correlation Coefficient	.575**	.568**	1,00
	Sig. (2-tailed)	0,00	0,00			Sig. (2-tailed)	0,00	0,00	
	N	326,00	326,00	326,00		N	326,00	326,00	326,00
**. Correlation is significant at the 0.01 level (2-tailed).					Correlation is significant at the 0.01 level (2-tailed).				

Table B-48: Comparison between linear and non-linear coefficients

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”



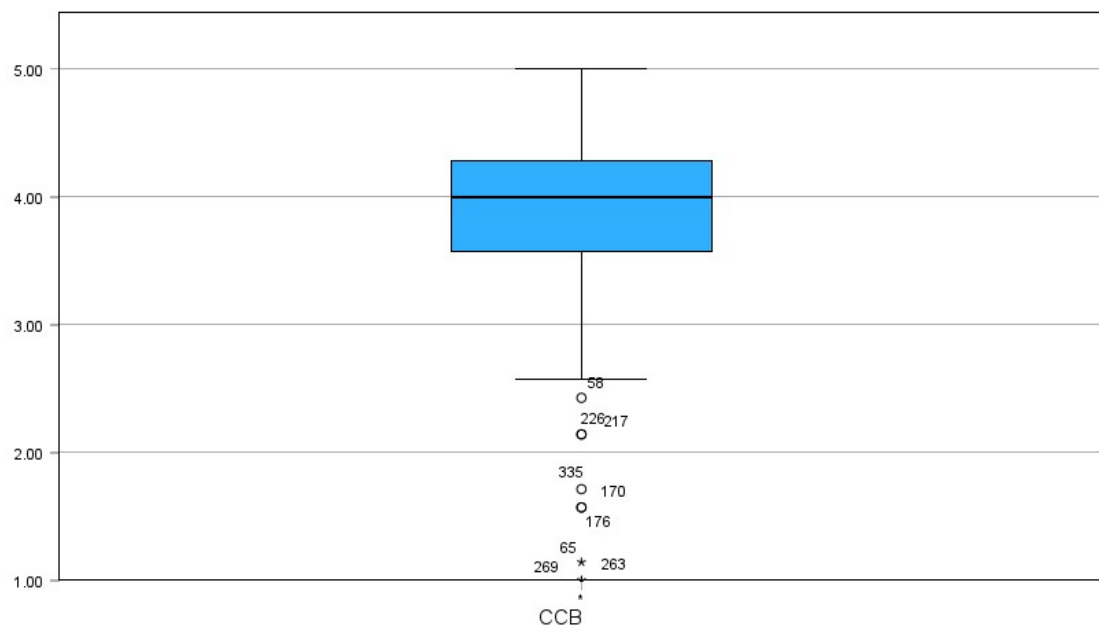
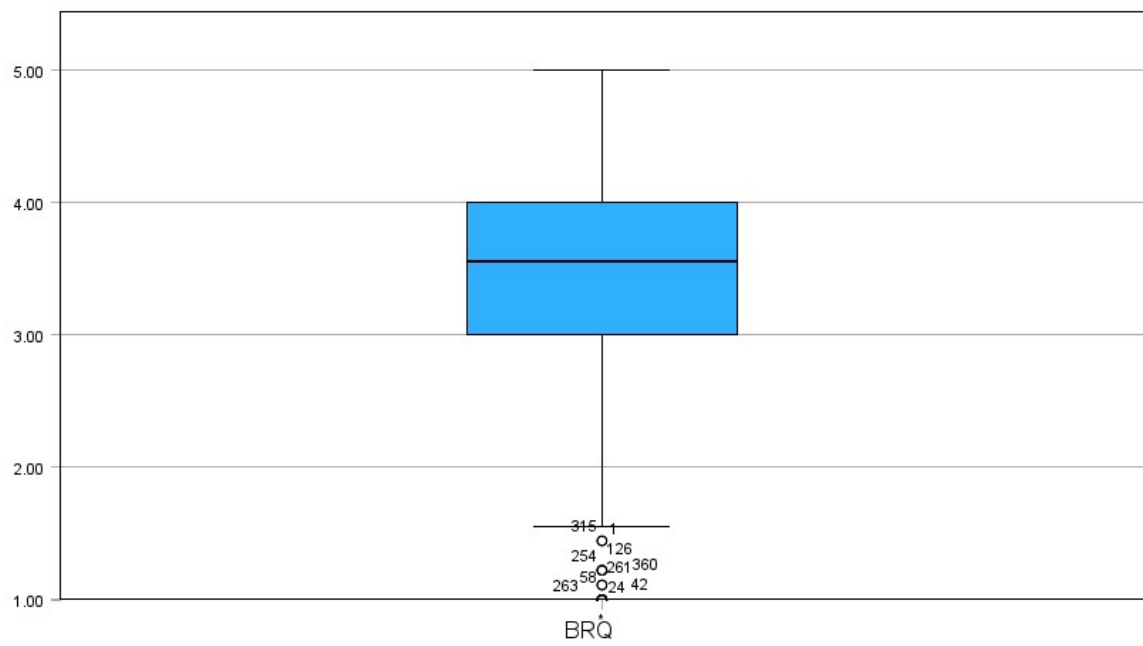


Figure B.9: Boxplots of response data for construct variables
(PSMMA: Police Social Media Marketing Activities, BRQ: Brand Relationship Quality, CCB: Citizen
Citizenship Behaviour)

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Bootstrap

Bootstrap Specifications

Sampling Method	Simple
Number of Samples	5000
Confidence Interval Level	95.0%
Confidence Interval Type	Percentile

Nonparametric Correlations

Correlations

		PSMMA	BRQ	CCB
Spearman's rho	PSMMA Correlation Coefficient	1.000	.739**	.575**
	Sig. (2-tailed)	.	<.001	<.001
	N	326	326	326
	Bootstrap ^b Bias	.000	-.002	.000
	Std. Error	.000	.031	.042
	95% Confidence Interval	Lower	1.000	.673
		Upper	1.000	.794
	BRQ Correlation Coefficient	.739**	1.000	.568**
	Sig. (2-tailed)	<.001	.	<.001
	N	326	326	326
BRQ	Bootstrap ^b Bias	-.002	.000	.000
	Std. Error	.031	.000	.043
	95% Confidence Interval	Lower	.673	1.000
		Upper	.794	1.000
	CCB Correlation Coefficient	.575**	.568**	1.000
	Sig. (2-tailed)	<.001	<.001	.
CCB	N	326	326	326
	Bootstrap ^b Bias	.000	.000	.000
	Std. Error	.042	.043	.000

	95% Confidence Interval	Lower	.489	.481	1.000
		Upper	.655	.651	1.000

Correlations

		CCB	
Spearman's rho	PSMMA	Correlation Coefficient	.575**
		Sig. (2-tailed)	<.001
		N	326
		Bootstrap ^b Bias	-.001
		Std. Error	.043
		95% Confidence Interval	Lower .488
			Upper .654
	BRQ	Correlation Coefficient	.568**
		Sig. (2-tailed)	<.001
		N	326
		Bootstrap ^b Bias	-.002
		Std. Error	.043
		95% Confidence Interval	Lower .481
			Upper .648

** . Correlation is significant at the 0.01 level (2-tailed).

b. Unless otherwise noted, bootstrap results are based on 5000 bootstrap samples

Confidence Intervals of Spearman's rho

	Spearman's rho	Significance(2-tailed)	95% Confidence Intervals (2-tailed) ^{a,b}	
			Lower	Upper
PSMMA - BRQ	.739	<.001	.683	.786
PSMMA - CCB	.575	<.001	.495	.645
BRQ - CCB	.568	<.001	.487	.639

a. Estimation is based on Fisher's r-to-z transformation.

b. Estimation of standard error is based on the formula proposed by Fieller, Hartley, and Pearson.

Table B-49: Detailed Correlation Analysis for all Constructed Variables

(PSMMA: Police Social Media Marketing Activities, BRQ: Brand Relationship Quality, CCB: Citizen Citizenship Behaviour)

Source: Lazaridou, Z. (2026) "Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece"

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
-------	-------------------	-------------------	--------

1	PSMMA ^b	.	Enter
---	--------------------	---	-------

a. Dependent Variable: CCB

b. All requested variables entered.

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.645 ^a	.416	.414	.52734	1.987

a. Predictors: (Constant), PSMMA

b. Dependent Variable: CCB

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	64.124	1	64.124	230.593	<.001 ^b
	Residual	90.099	324	.278		
	Total	154.224	325			

a. Dependent Variable: CCB

b. Predictors: (Constant), PSMMA

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.511	.159		9.489	<.001	1.198	1.824
	PSMMA	.670	.044	.645	15.185	<.001	.583	.757

a. Dependent Variable: CCB

Table B-50: Regression Analysis of CCB on PSMMA

(PSMMA: Police Social Media Marketing Activities, CCB: Citizen Citizenship Behaviour)

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	BRQ ^b	.	Enter

a. Dependent Variable: CCB

b. All requested variables entered.

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.602 ^a	.362	.360	.55098	1.909

a. Predictors: (Constant), BRQ

b. Dependent Variable: CCB

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	55.865	1	55.865	184.023	<.001 ^b
	Residual	98.359	324	.304		
	Total	154.224	325			

a. Dependent Variable: CCB

b. Predictors: (Constant), BRQ

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.326	.119		19.520	<.001	2.091	2.560
	BRQ	.451	.033	.602	13.566	<.001	.386	.517

a. Dependent Variable: CCB

Table B-51: Regression Analysis of CCB on BRQ

(BRQ: Brand Relationship Quality, CCB: Citizen Citizenship Behaviour)

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Descriptive Statistics			
	Mean	Std. Deviation	N
CCB	3.8878	.68886	326
BRQ	3.4605	.91836	326
PSMMA	3.5477	.66299	326

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	PSMMA, BRQ ^b	.	Enter

a. Dependent Variable: CCB

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.666 ^a	.443	.439	.51574	1.951

a. Predictors: (Constant), PSMMA, BRQ

b. Dependent Variable: CCB

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	68.309	2	34.154	128.403	<.001 ^b
	Residual	85.915	323	.266		
	Total	154.224	325			

a. Dependent Variable: CCB

b. Predictors: (Constant), PSMMA, BRQ

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error				Lower Bound	Upper Bound	Tolerance	VIF
1(Constant)	1.574	.157		10.056	<.001	1.266	1.882		
BRQ	.194	.049	.258	3.966	<.001	.098	.290	.406	2.462
PSMMA	.463	.068	.446	6.840	<.001	.330	.596	.406	2.462

a. Dependent Variable: CCB

Casewise Diagnostics^a

Case Number	Std. Residual	CCB	Predicted Value	Residual
176	-3.660	1.57	3.4588	-1.88737
217	-3.242	2.14	3.8150	-1.67214
261	3.461	4.86	3.0719	1.78522

a. Dependent Variable: CCB

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.2311	4.8588	3.8878	.45845	326
Residual	-1.88737	1.78522	.00000	.51415	326
Std. Predicted Value	-3.614	2.118	.000	1.000	326
Std. Residual	-3.660	3.461	.000	.997	326

a. Dependent Variable: CCB

Table B-52: Regression Analysis Summary for Empirical model of CCB on BRQ and PSMMA (BRQ: Brand Relationship Quality, PSMMA: Police Social Media Marketing Activities, CCB: Citizen Citizenship Behaviour)

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

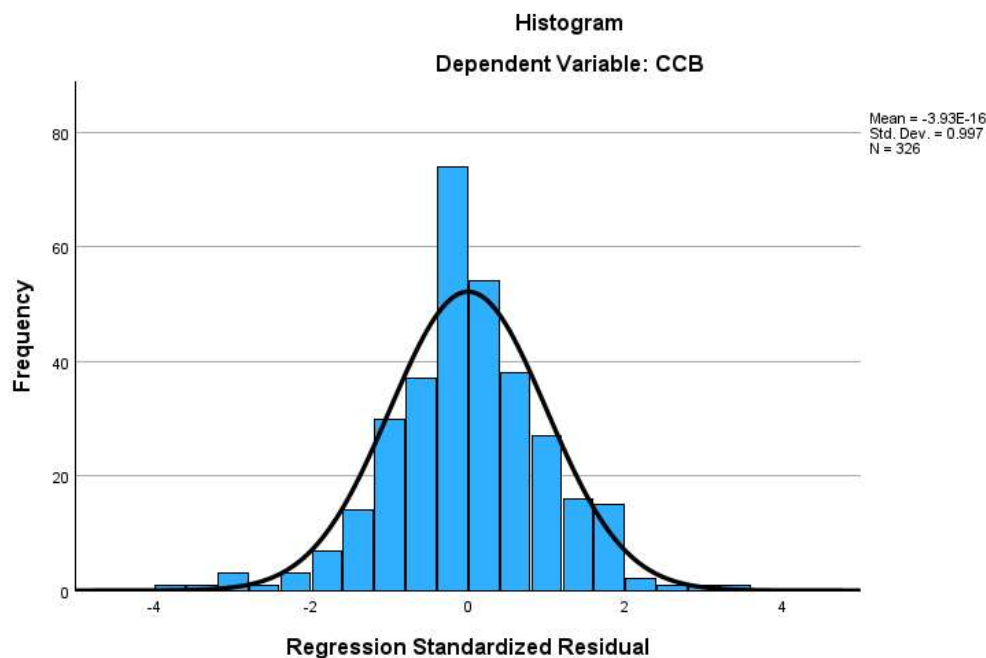


Figure B.10: Regression Standardized Residual for Dependent Variable CCB considering BRQ, PSMMA as independent variables

(BRQ: Brand Relationship Quality, PSMMA: Police Social Media Marketing Activities, CCB: Citizen Citizenship Behaviour)

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

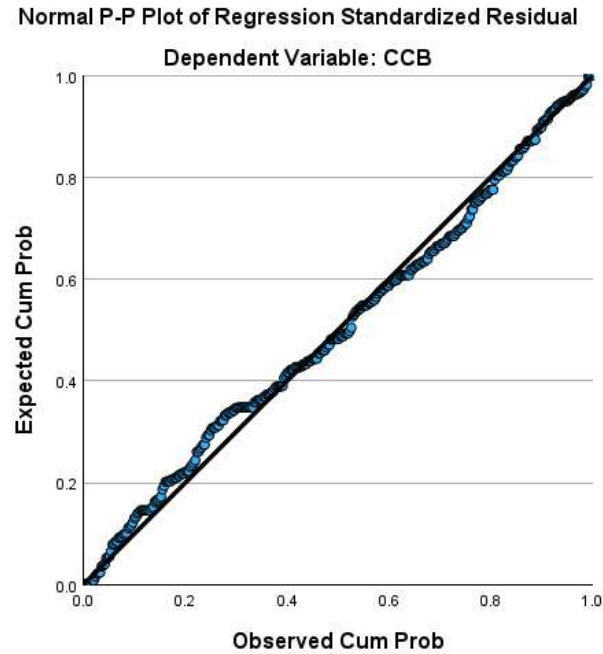
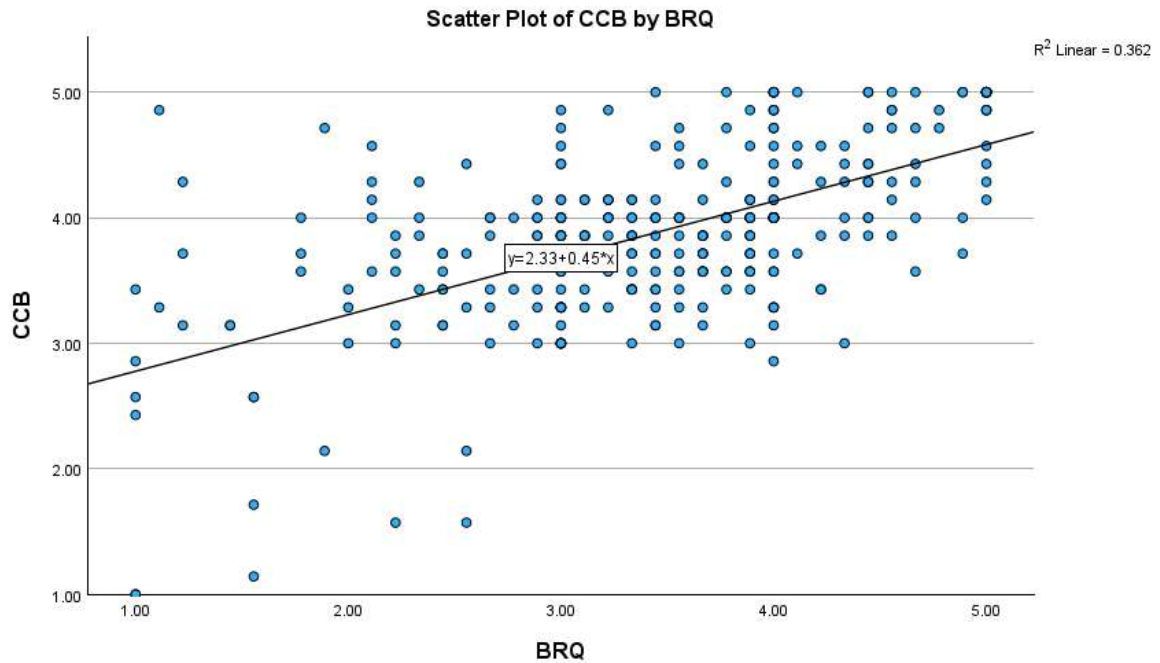


Figure B.11: Normal P-P Plot of Regression Standardized Residual for Dependent Variable CCB considering BRQ, PSMMA as independent variables
(BRQ: Brand Relationship Quality, PSMMA: Police Social Media Marketing Activities, CCB: Citizen Citizenship Behaviour)

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”



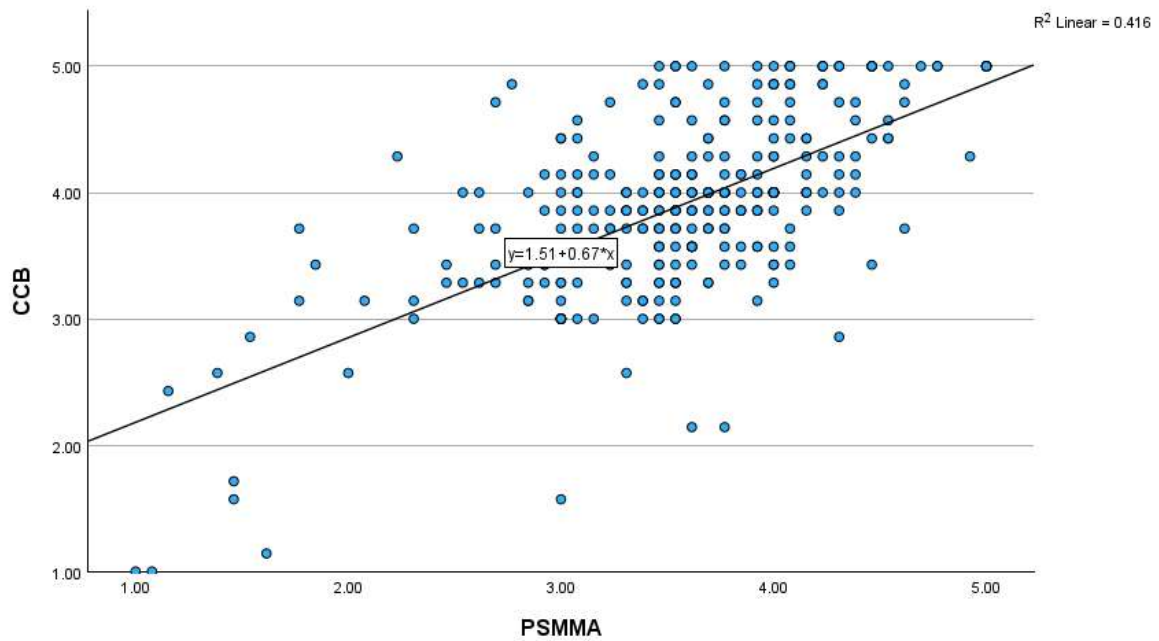


Figure B.12: Partial Regression charts of CCB on BRQ, PSMM

(BRQ: Brand Relationship Quality, PSMMA: Police Social Media Marketing Activities, CCB: Citizen Citizenship Behaviour)

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

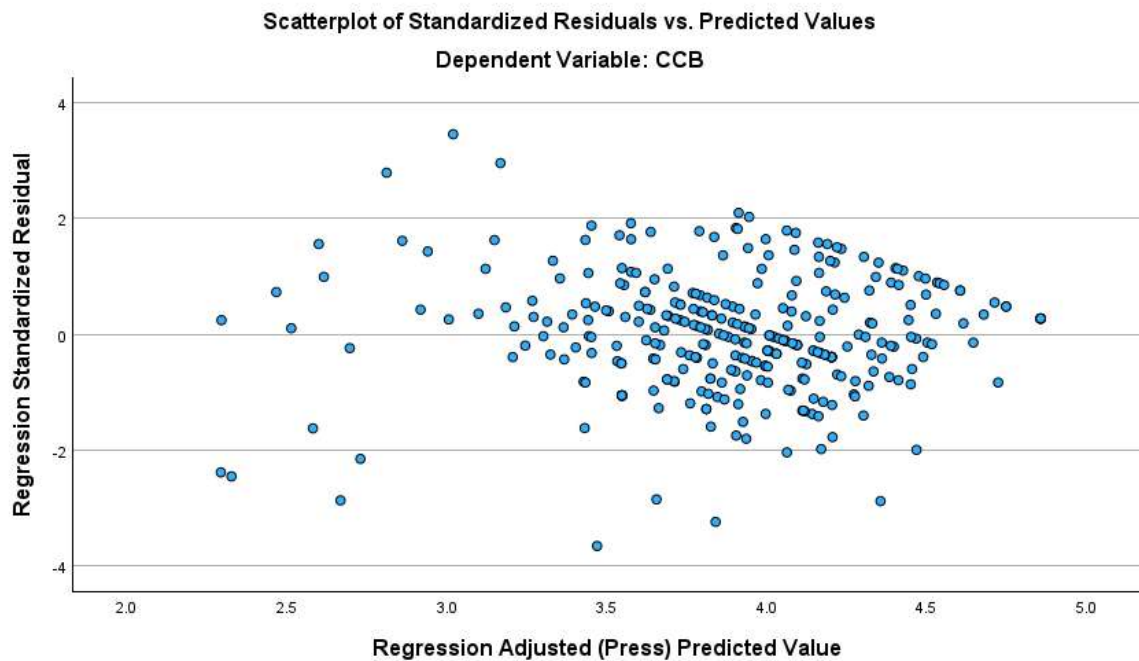


Figure B.13: Scatterplot of Standardized Residuals vs. Predicted Values

Source: Lazaridou, Z. (2026) “Social Identity to Social Exchange: A Sequential Theory Model of Police Social Media Marketing Influence and Citizen Citizenship Behaviour in Urban Greece”

Author's Statement:

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