T.C.
ISTANBUL AYDIN UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES

THE EFFECT OF CROWDSOURCING ON SOCIAL MEDIA IN NEW PRODUCT DEVELOPMENT

MBA THESIS

James Timilehin AKINLOSE

Department of Business Administration
Business Administration Program

Thesis Advisor: Assoc. Prof. Dr. Ilkay KARADUMAN

September 2019

T.C.
ISTANBUL AYDIN UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES

THE EFFECT OF CROWDSOURCING ON SOCIAL MEDIA IN NEW PRODUCT DEVELOPMENT

MBA THESIS

James Timilehin AKINLOSE
(Y1512.130001)

Department of Business Administration
Business Administration Program

Thesis Advisor: Assoc. Prof. Dr. Ilkay KARADUMAN

September 2019

T.C.
İSTANBUL AYDIN ÜNİVERSİTESİ
SOSYAL BİLİMLER ENSTİTÜSÜ MÜDÜRLÜĞÜ

YÜKSEK LİSANS TEZ ONAY FORMU

Enstitümüz İşletme İngilizce Anabilim Dalı İşletme Yönetimi İngilizce Tezli Yüksek Lisans Programı Y1512.130001 numaralı öğrencisi JAMES TIMILEHIN AKINLOSE'nin **"The Effect of Crowdsourcing of Social Media in New Product Development"** adlı tez çalışması Enstitümüz Yönetim Kurulunun 09.08.2019 tarih ve 2019/20 sayılı kararıyla oluşturulan jüri tarafından oybirliği/oyçokluğu ile Tezli Yüksek Lisans tezi 13.09.2019 tarihinde kabul edilmiştir.

	Unvan	Adı Soyadı	Üniversite	İmza
		ASIL ÜYELER		
Danışman	Doç. Dr.	İlkay KARADUMAN	İstanbul Aydın Üniversitesi	
1. Üye	Dr. Öğr. Üyesi	Nurgün KOMŞUOĞLU YILMAZ	İstanbul Aydın Üniversitesi	
2. Üye	Dr. Öğr. Üyesi	İlge KURT	Nişantaşı Üniversitesi	
		YEDEK ÜYELER		
1. Üye	Dr. Öğr. Üyesi	Hülya BOYDAŞ HAZAR	İstanbul Aydın Üniversitesi	
2. Üye	Dr. Öğr. Üyesi	Fatma Özge BARUÖNÜ LATİF	Doğuş Üniversitesi	

ONAY

Prof. Dr. Ragıp Kutay KARACA
Enstitü Müdürü

DECLARATION

I declare that all data in this thesis report has been gotten and introduced as per scholarly guidelines and moral lead. I further declare that, as required by the principles and conduct, I have completely referred to and referenced all material and results, which are not unique to this report.

James Timilehin AKINLOSE

FOREWORD

My profound gratitude goes to the Almighty God for His love and grace to be able to carry out this research work. I appreciate Him for making this program possible for me. My heartfelt gratitude goes to my amiable and able supervisor Dr. ilkay KARADUMAN for his brilliant contributions towards the success of this work. I appreciate God in his life and I thank him for his intellectual guidance and encouragement which had helped in the accomplishment of this work.
My sincere appreciation also goes to my parents, Mr. and Mrs. Akinlose for their parental guides and for being there always, may God continue to bless you both in Jesus name.

September 2019 **James Timilehin AKINLOSE**

TABLE OF CONTENT

Page

LIST OF TABLES

Page

LIST OF FIGURE

Page

THE EFFECT OF CROWDSOURCING ON SOCIAL MEDIA IN NEW PRODUCT DEVELOPMENT

ABSTRACT

The broad objective is to examine the effect of crowdsourcing on social media in new product development. However, the study specifically investigated the effect of crowdsourcing on new product development in Nigeria; examined the effect of social media on new product development in Nigeria; determined the correlation between crowdsourcing and social media in Nigeria and examined the relationship between crowdsourcing and social media on new product in Nigeria. Primary sources of data were used in this study which was sourced from the selected elements of the population. Pearson correlation and regression analysis were used as the estimation techniques in the study.

The result of the correlation analysis revealed that new product social media (NPSM) and crowdsourcing (CS) has positive and significant relationship between the two variables, NPSM and BP shows a positive correlation between NPSM and BP, the correlation value of NPSM and firm performance (FP) depicts a positive relationship between each other, while the result of NPSM and customer convenience shows positive correlation between the two variables. The regression coefficient revealed that at constant, there exist positive but insignificant impacts on the dependent variable. Furthermore, crowdsourcing coefficient exhibits a positive and significant impact on the new product social media, business productivity (BP) exhibits negative and insignificant impact on new product social media, firm performance has a positive impact but not significant to influence new product social media, while customer convenience has positive and significant impact on new product social media during the study period.

Keywords: *Product, Social Media, Crowdsourcing, Firm Performance, Business Productivity*

YENI ÜRÜN GELIŞTIRMEDE KITLE KAYNAK KULLANIMININ SOSYAL MEDYA ETKISI

ÖZET

Bu çalışmada, yeni ürün geliştirmede kitle kaynak kullanımın sosyal medya üzerindeki etkisini incelemiştir. Bununla birlikte, çalışma Nijerya'da kalabalık kaynaklı kullanımının yeni ürün geliştirme üzerindeki etkisini özellikle araştırmıştır; Nijerya'da sosyal medyanın yeni ürün geliştirme üzerindeki etkisini incelemiş; Nijerya'da kitle kaynak kullanımı ile sosyal medya arasındaki ilişkiyi belirleyebilir; Nijerya ve Nijerya'daki kalabalık kaynaklı-sosyal medya ile yeni üründeki sosyal medya arasındaki ilişkiyi incelemiştir. Popülasyonun seçilen unsurlarından elde edilen bu çalışmada birincil veri kaynakları kullanılmıştır. Araştırmada tahmin teknikleri olarak Pearson korelasyonu ve regresyon analizi kullanılmıştır.

Korelasyon analizi sonucunda, yeni ürün sosyal medyasının (NPSM) ve kittle kaynak (CS) iki değişken arasında pozitif ve anlamlı bir ilişki olduğu ortaya çıkmıştır. NPSM ve BP, NPSM ve BP arasında pozitif bir ilişki olduğunu göstermektedir, NPSM ve firma performansının korelasyon değeri (FP), birbirleri arasında pozitif bir ilişki olduğunu, NPSM ve müşteri rahatlığının sonucu, iki değişken arasında pozitif bir ilişki olduğunu göstermektedir. Regresyon katsayısı sabit olduğunu gösterdi, Bağımlı değişken üzerinde olumlu ama önemsiz etkiler vardir. Ayrıca, kitle kaynak katsayısı, yeni ürün sosyal medyası üzerinde olumlu ve önemli bir etki sergilemekte, iş üretkenliği (BP) yeni ürün sosyal medyası üzerinde olumsuz ve önemsiz bir etki göstermrktedir, Firma performansının olumlu bir etkisi vardır ancak yeni ürün sosyal medyasını etkilemek için önemli değildir, Müşteri rahatlığının çalışma süresince yeni ürün sosyal medya üzerinde olumlu ve önemli bir etkisi vardır.

Anahtar Kelimeler: *Ürün, Sosyal Medya Kalabalık-kaynak, Firma Performansı, İş Verimliliği*

1. INTRODUCTION

1.1 Study Overview

Exploiting the rising acknowledgment of internet-based life advancements, business people are ceaselessly making and exploring different avenues regarding imaginative sourcing models. One of the most significant models is publicly supporting, whereby associations/organizations utilize the web to interface the endeavors of a virtual group to accomplish explicit authoritative undertakings. Crowdsourcing along these lines exploits a considerable lot of the equivalent innovative highlights that portray internet-based life, the innovation that empowers online networks through which clients can communicate with those of comparative interests. Crowdsourcing is particular from unadulterated internet-based life applications in that it not just effectively includes a different horde of clients yet effectively controls the online network through modern administration plans including remuneration and such. Be that as it may, while web-based life locales place accentuation on the social part of network, publicly supporting includes the administration of a network by means of online synergistic innovations to invigorate the network's information or ranges of abilities and in this manner satisfy a pre-distinguished business objective (Saxton, Oh, & Kishore, 2010).

Crowdsourcing is a means of identifying an errand or gathering of undertakings to complete a movement inside an association, this assignment is then discharged to a 'crowd' who are welcome to play out the errand in the interest of the association for a stipulated reward. The group might be a really open call where any individual who is keen on finishing the undertaking is welcome to present their reaction; or the errand might be restricted to a specific network that is prescreened to have some specific expertise or a blend of these can be utilized with an open call discharged to a non-explicit network however confinements set on who might be permitted to finish the assignment. In any case, an individual from the network at that point offers to attempt the errand and a particular time stipend will be given for the undertaking to be finished. At the point when the assignment is done, the part will present the errand

to the firm and the firm will at that point evaluate the nature of the work and whenever fulfilled will make reward to the part. Minor departure from the above subject exist. Some of the time a solitary assignment can be finished by a wide range of clients and each can be paid in the event that they effectively complete the undertaking. In different cases, the undertaking can be acknowledged by numerous individuals who will each chip away at the assignment, although the comprehension is that just a single part will 'win' compensate for the errand, that being whoever concocted the 'best' answer for the errand as chosen by the firm.

Gilchrist, (2008) opined that crowdsourcing is the way toward getting to gatherings of individuals with known or characterized qualities and tapping their insight to make something of significant worth. On account of new item improvement, it is throwing a net for new thoughts well past the inward sanctum of a cutting-edge association's normal statistical surveying, item advancement and advertising capacities. Howe (2006) defined crowdsourcing as the “representation of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call. This can take the form of peer-production (when the job is performed collaboratively) but is also often undertaken by sole individuals. The crucial prerequisite is the use of the open call format and the large network of potential laborers.”

Whitla (2009) viewed that crowdsourcing is a procedure of sorting out work, where organizations package out work to the online network, offering pay for anybody inside the 'swarm' who finishes the undertaking the organization has set. The profits for an organization of redistributing to a group as opposed to executing the activities in-house is that organization can access an enormous network of potential specialists who have an alternate scope of abilities and expertise, and who are eager and ready to finish exercises inside a brief span period and regularly at a much decreased expense when contrasted with playing out the errand in-house (Howe, 2006). Dawson and Bynghall, (2012) are of the view that publicly supporting connected to for all intents and purposes any space, from utilizing gamification to drive representatives' inspiration, to difficulties and prizes compensating thoughts for item advancement and development, to paid smaller scale assignments as another structure to finish routine substance work, for example, basic content interpretation, information section, or updates of database records.

1.2 Problem Identified

Disturbance and digitization are varying in increasing number of businesses, and an ever-increasing number of organizations. Thus, customary methods for moving toward advancement are missing the mark. Be that as it may, there is another method for rehearsing development being grasped by a developing number of organizations, not simply in innovation. A significant part of this new all undertaking methodology is the utilization of publicly supporting, the way toward welcoming thoughts from gatherings generally online to take care of a typical issue. All the more along these lines, the ascent in web, cell phones, and remote sensors implied that associations keen on publicly supporting which could without much of a stretch connect with a worldwide pool of assets and aptitudes which are promptly accessible at practically whenever of the day at the snap of a catch. In the interim, publicly supporting is about situations including bunches that are requests of size bigger than in the old-style collaboration situations that have been liable to authoritative administration and aggregate knowledge thinks about (Malone, Laubacher, & Dellarocas, 2010).

The strategy has suggestions for the manners by which individual commitments are arranged, distributed, blended, and assessed. A publicly supporting task includes work that can be separated into numerous ways that can be finished in a similar time by various gatherings and assessed to an enormous degree immediately. This extra overhead could conceivably exceed the normal benefits of the activity; for example, the Netflix challenge pulled in a considerable measure of consideration in the media and got a few significant commitments, the real outcomes were never utilized in light of the fact that the designing exertion required to coordinate the triumphant calculation into the stage did not coordinate Netflix' new plan of action and moves in client conduct. While the activity likely included to Netflix' picture as an innovation pioneer, disparities in the definition of the publicly supporting assignment and advancing specialized and financial conditions implied that the imaginative venture of the test members was for the most part lost. In any case, associations are tested with an extraordinary potential, yet in addition with a dark mass of approximately dedicated patrons; little is thought about their identity, what they are great at, and what spurs them to put it plainly, medium, or long haul. The examination network and publicly supporting specialist organizations have put extensive exertion into planning techniques to distinguish and debilitate unintended behavior (Oleson et al.,

2011). Nonetheless, many crowdsourcing initiatives fail as a result of low engagement and participation (Kavaliova, Virjee, Maehle & Kleppe 2016).

1.3 Study Questions

This study shall provide solutions to the following specific questions as follows

- What is effect of crowdsourcing on new product in Nigeria?
- What is the impact of social media on new product in Nigeria?
- What is the correlation between crowdsourcing and social media in Nigeria?
- How does crowdsourcing and social-media affect new product development in Nigeria?

1.4 Specific Objectives

The broad objective is to examine the effect of crowdsourcing on social media in new product development. However, the specific are to:

- Examine the impact of crowdsourcing on new product development in Nigeria
- Determine the impact of social media on new product development in Nigeria
- Determine the correlation between crowdsourcing and social media in Nigeria
- Examine the association-ship between crowdsourcing and social media on new product in Nigeria.

1.5 Hypotheses of the Research

H_{01}: There is no significant effect of crowdsourcing on new product development in Nigeria

H_{02}: Social media has no significant effect on new product development in Nigeria

H_{03}: Crowdsourcing does not have any significant relationship with social media in Nigeria

H_{04}: Social media does not have any significant relationship with crowdsourcing on new product development in Nigeria.

1.6 Justification

The purpose of the study is to investigate how crowdsourcing affect social media of new product development in Nigeria which is utmost important for businesses, government, investor, policy makers, academia and researchers. Because Nigeria is an emerging market where social media marketing has not been fully pronounced across the regions. This study shall focus on a city (Lagos) where social media is well pronounced to contribute its effect using crowdsourcing in promoting new product development.

1.7 Study Scope

The broad objective of this study is to examine the effect of crowdsourcing on social media in new product development using Lagos State, Nigeria as a case study. The Lagos city occupies a big zone, with a sum of 1,171.28 square km (452.23sq ms). The populace proceeding to develop, and right now surpassing in any event 17 million inhabitants, the populace thickness is around 6,872 occupants for every square km (17,800 for every sq. mile). However, two local government area shall be covered in this study which are Ikeja Local Government and Lagos Island Local Government where questionnaire shall be distributed at random during the process.

1.8 Definition of Terms

- Crowd: A crowd is a huge gathering of individuals that are accumulated or thought about together. A group might be quantifiable through a typical reason or set of feelings, for example, at a political rally, a game, or during plundering, or may just be comprised of numerous individuals continuing ahead in a bustling zone.

- Crowdsourcing: This is a sourcing model in which individuals or organizations obtain goods and services.

- Social Media: This refers to the key means to get information from every corner of the globe. Social media facilitate the development of social networks by connecting users' profile with the other individuals/businesses or the groups.

- New Product: This refers to the total process of fetching a newfangled invention to marketplace.

2. REVIEW OF LITERATURE

2.1 Social Media

Social media is one of the most popular slogans just as mechanical ideas, which has achieved influential changes in business-to-business correspondence, business-to-client correspondence, and client to-client correspondence (Kietzmann, *et al.* 2011). Internet based life began as a strategy for individuals to either associate or reconnect with one another. As of late, organizations are utilizing online life advertising to effectively develop their organizations and to get their statement out in an enormous manner. The best promoting methodology is one that utilizations internet-based life and customary advertising couple. Entrepreneurs have made sense of that online life has an exceptionally beneficial outcome on the achievement of business and it is a technique that takes next to no cash to achieve a strong outcome (Cohn, 2010).

Social-media usage has prompted gigantic changes and the components of human associations take on another perspective. Online long-range interpersonal communication has outfitted purchasers with stages to outline a sort of inalienable system around a thing or brand. Regardless, associations that hold onto web based as a framework must recognize that they are losing a part of control to the customer. For some organizations today, online life is their biggest web nearness, overwhelming their organization sites and email programs (Mangold & Faulds, 2009). In this way internet-based life has transformed how organizations collaborate and speak with their clients just as how they build up and execute their client relationship the board strategies.

As indicated by (Tirunillai & Tellis, 2012), advertisers and financial related examiners believe internet-based life where online clients audit and blogs give item and variety explicit data contrasted and other famous types of showcasing. Not quite the same as customary online purchaser conduct measurements, web-based life measurements are included by their capacity to produce, offer, and spread data virally, which makes a social infectious impact lashing the phenomenal haste of data dissemination over the web (Aral *et al.* 2011)

2.1.1 Marketing of social media

The showcasing volume of casual activities related with web based systems administration and the level of impact verbal trade has on the shopper essential authority strategy and attitude plan are compelled by different key components, including tie quality (Brown *et al.* 2007). They explain the tie quality as the closeness of the security between the information searcher and the source – the more grounded the tie the more reasonable the advancing activity will be, as such highlighting the centrality of associations. Internet systems administration has caused a gigantic change in the frameworks and instruments associations use for talking with customers. associations are compelled in the proportion of control they have over the substance and scattering of information. Dismissing such customer made substance isn't an option. Associations should more likely than not screen and respond to exchange, both positive and negative, incorporating the brand. There are courses regardless, that associations can affect trades in a way that is dependable with the association's main goal (Mangold & Faulds, 2009). Social media marketing empowers organizations to accomplish a superior comprehension of client needs to fabricate compelling connections. Writers composing on the theme of social media advertising, for example, Greenberg (2009), punctually admit the incorporation of brief note showcasing the social media arrangement in its widest logic. Additionally, Chaffey, Ellis-Chadwick, Johnston, and Mayer (2009) perceive gratified notifying as a normally applied means for dialog with buyers, thus far, they are incredulous of its viability in examination with other online networking channels. The speed at which online networking instruments create may make web-based life sites a perilous area for advertisers and he alerts advertisers against contributing and submitting significant measures of assets to web-based marketing, alluding to internet based (Andersen, 2008). Compact bonds with customers are elementary for web-based social interacting marketing to be successful. Kunur (2010) suggests staff outside of the promoting division ought to likewise be associated with the organization’s internet-based life action as it very well may be utilized at each phase of the selling cycle. Be that as it may, Gay, Charlesworth, and Esen (2007) think getting purchase in from different territories of the business, especially from the executives, might be a test for certain associations. This trouble underlines the requirement for upper

directors to be focused on the idea of e-promoting and to share their excitement as inner victors.

The writing on social-media advertising, whereas not broad, manages procedures, devices and online customer conduct; less consideration has been centered around the region of estimation. The purpose behind this absence of regard for proportions of internet-based life promoting efforts might be halfway ascribed to the trouble of estimating such battles. It shows up the best online life strategies are frequently not as quantifiable as their less viable partners. Be that as it may, the criticalness of budgetary measures by proposing return on venture is just a single method to check the achievement of a campaign, and prompts supplementing rate of profitability with different estimates, for example, return on commitment (Kirby, 2010). Matthew (2014) clarify how it tends to be utilized for open development over the whole advancement channel, traversing ideation, R&D, and commercialization.

2.1.2 Crowd

The attributes of crowd specialist organizations and providers are distinctive in the two structures; while with conventional redistributing, an element sub-gets a business procedure or need, for example, item plan and assembling with a bunch of expert outsider organizations, the publicly supporting model goes to scale by means of an indistinct, non-proficient, and heterogeneous online "swarm" to source in these requirements. In the publicly supporting model, it is the online network that is relied upon to assume the job of "specialist co-ops" as makers, trailblazers, and issue solvers. This suggestion isn't paltry, in that publicly supporting relies upon the expansive unknown "masses" found on the web, with the desire that a huge scale virtual group can outflank a bunch of experts.

2.1.3 Crowdsourcing

Crowdsourcing was presented by Howe and Robinson in 2006. They referred to, according to Howe who sketched out crowdsourcing as the showing of an association or establishment taking a limit once performed by agents and redistributing it to an indistinct (and for the most part huge) system of individuals as an open call (Howe, 2006b). crowdsourcing portrays a system of dealing with work, where firms bundle out work to (consistently on the web) organize, offering portion for anyone inside the 'swarm' who completes the task the firm has set. The focal points for a firm of re-

appropriating to a gathering as opposed to performing assignments in-house is that associations can get to an astoundingly huge system of potential workers who have a different extent of capacities and aptitude and who are excited and prepared to complete activities inside a brief time allotment layout and normally at a much diminished cost when diverged from playing out the task in-house (Howe, 2006a).

Crowdsourcing operates in the accompanying manner. An organization distinguishes an assignment or gathering of undertakings that is right now being led in-house. Instead of keeping on playing out this movement inside the firm, the undertakings are released to a 'swarm' of pariahs who are free to play out the task for the good of the association for a stipulated cost. The gathering may be a truly open consider where any person who is enthusiastic about completing the task is free to show their response; or the task may be limited to a particular system that is prescreened to have some particular data or inclination; or a mix of these can be used with an open call released to a non-unequivocal system yet imprisonments set on who may be allowed to complete the endeavor (Whitla, 2009). A person from the system by then ideas to grasp the task and a period reward will be given for the endeavor to be done. Exactly when the task is done, the part will show the task to the firm and the firm will by then overview the idea of the work and at whatever point satisfied will make portion to the part. Minor takeoff from the above subject exist. A portion of the time a singular endeavor can be done by a wide scope of customers and each can be paid if they successfully complete the task. In various cases the endeavor can be recognized by various people who will each tackle the task, although the appreciation is that only a solitary part will 'win' portion task, being whoever thought of the greatest response for the endeavor as picked by the organization.

A few organizations have used crowdsourcing by distributing accessible undertakings all alone sites. In any case, a progressively compelling technique for accomplishment to the gathering may be through the organizations of online locales or publicly supporting middle people which go about as business sectors for clients to associate with the groups allude to these destinations as commercial centers of thoughts (Whitla, 2009). People chipping away at errands through these publicly supporting mediators may not by any means become acquainted with the customer firm for whose benefit they are finishing the assignment.

2.1.4 Crowdsourcing role in development of new product

Crowdsourcing refers to business procedure of aggressive worth which requires an unexpected example in comparison to customary item advancement. Shoppers conveys the meaning of organizations creating and showcasing while purchasers joyfully devour. Publicly supporting foggy spots, the lines between buyers, fashioners and advertisers. The individual who adds to an item structure one day can pivot and prescribe it to a companion the following.

2.1.4.1 Crowdsourcing within a traditional framework of new product development

- Idea Generation

Opening the new item configuration procedure to the "swarm", i.e., your clients, sellers, workers, buyers, outside topic specialists, and even the overall population (the majority of your present and potential business voting public) puts a more noteworthy interest on the organization to know precisely what it needs and what it is happy to pay for a working item. Numerous organizations enter the procedure trusting shopper studies and center gatherings will give the correct item definition. This unavoidably prompts a more serious danger of disappointment because of: the constrained size and broadness of these gatherings; and center gatherings for instance catch sentiment however not real conduct.

- Development and Testing

Lego publicly supports its idea advancement and testing by supporting the online Lego Workshop. Here anybody can structure virtual Lego scenes, tweaking squares and hues. Standards incorporated with the framework keep clients from structure hinders that can't be repeated in the physical world. Lego item individuals currently have a lab running all day, every day where they can watch clients creating and buying items. Threadless is a T-shirt organization that produces shirts made by individuals from its online network. Consistently, part's decision on which shirts will be created and the organization pursues the gathering's suggestion. In a business where companies are lucky to sell 20% of their production at full retail, Threadless has never failed to sell out of its shirts (Gilchrist, 2008).

2.1.5 Innovation of crowdsourcing

A company known as Chaordix, aids trades to use crowdsourcing for invention and innovation of brand. The chief executive officer says, crowdsourcing can be used for multiple purposes: team insights, brand innovation, product innovation, business-to-business, social innovation. Kuipers said good crowdsourcing is not as easy as it might seem. You need to get your audience engaged, even before day one. You need to start building a community of enthusiastic participants. Tell them what's 'coming soon', how they can reserve a spot and why they should be excited." Storytelling is key: before, during and after the campaign. "That way you get more out of crowdsourcing than a one-time campaign. You can make it a persistent innovation channel. Crowdsourcing is a popular subject of Design. After Chaordix's presentation, 99 designs (logo design by the crowd) and (connecting brands and creatives) take the stage. Eventually, it's the companies' job to implement the new product.

2.1.6 The challenges and opportunities of online crowdsourcing

The ascent of the internet mobile phones, and reasonable remote implied that firms keen on publicly supporting could without much of a stretch contact a worldwide pool of assets, abilities, and innovativeness, promptly available at practically whenever of the day at the snap of a catch (Simperl, 2015). The size of the activity has suggestions for the manners by which individual commitments are arranged, allocated, composed, and assessed; a 'run of the mill' publicly supporting errand would incorporate work that can be slowed down into various smaller bumps that can be done in a comparative time by different get-togethers; and evaluated to a tremendous degree therefore. This additional overhead could possibly surpass the typical benefits of the movement; for instance, when Google impelled an errand mentioning considerations on the most ideal approach to make the world a predominant spot, it took them around three years and 2,000 delegates to review the 130,000 passages and recognize 16 adventures they over the long haul looked for after (Simperl, 2015). The Netflix challenge is another uncommon model. While the test pulled in a better than average proportion of thought in the media and got a couple of huge duties, the certified results were never used on the grounds that the structure effort required to fuse the triumphant figuring into the stage did not facilitate Netflix new strategy and moves in customer lead. While the movement

likely added to Netflix picture as an advancement pioneer, blunders in the definition of the freely supporting task and creating specific and money related conditions suggested that the inventive theory of the test individuals was commonly lost.

The basic improvement in web based publicly supporting the culture of transparency, that bit by bit the way government and private segment consider commitment and of the job that natives and clients – people or bigger groups similar which can play in improving advancement possible and open picture. As a focal component of publicly supporting, the open call has the two upsides and drawbacks. The advantages are an element of the sheer size of the group of spectators focused by the call: associations approach huge pools of outer extra assets, imparting dangers and prizes to others for shared benefit. The drawbacks become clear when addressing IP regions that are too basic to even consider disclosing, or in view of the absence of knowledge and formal exercise for allocating errands to appropriate group individuals and boosting their conduct. With the commonality of built up social structures, associations are stood up to with an incredible potential, yet in addition with an obscure mass of approximately dedicated givers; little is thought about their identity, what they are great at, and what spurs them to put it plainly, medium, or long haul. The examination network and publicly supporting specialist organizations have put impressive exertion into planning strategies to distinguish and dishearten spam and hold donors' commitment (Simperl, 2015).

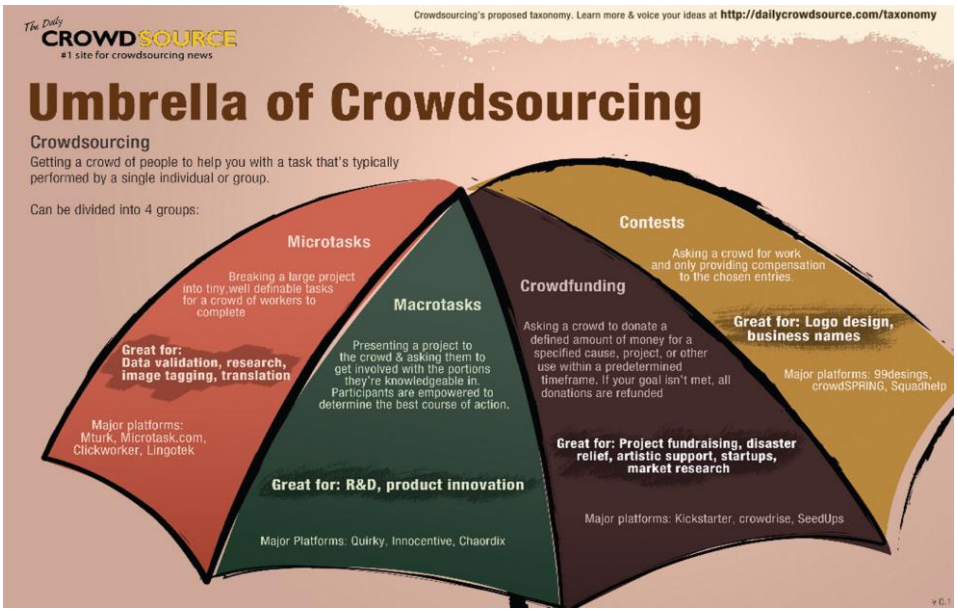

Figure 2.1: Forms of crowdsourcing

Source: Daily CrowdSource

2.1.7 Social media and small business

Practically all organizations mull over the utilization of web-based/ social media life to advertise/brand their items. Independent ventures utilize online networking application as an advertising device for the marking and promoting of items. Karkkainen, Jussila and Vaisanen (2010) examined general organizations to really perceive the amount of the online networking application has really infiltrated the nontechnology and customary organizations. In view of review results, they have discovered the reception of web-based life by organizations is slanted more toward correspondence to the client in the conventional sense, for example, marking, advertising, and lead age, as opposed to correspondence with the client, understanding the client, and interior interchanges. The methodologies of private ventures receive blogging to direct association through people that have keen for organizations. Online life causes independent company business people to construct their constrained network that media for smooth cooperation with their accomplices (Gunther *et al.* 2009). The inspiration for receiving blogging by independent company where business people have been to make firms further fittingly coordinated association with individuals who have same or normal business intrigue and consequently the organizations particularly little and medium undertakings are attempting to embrace small scale as apparent from the investigations of Fischer & Reuber (2010); & Riemer & Richter (2010). There is another pattern of utilizing Facebook by independent company business visionaries because of cost sparing and efficient in advancing their items just as because of its utilization in associating themselves with feeble ties and professional success. The moderately couple of academic examinations that think about how such web based life may profit firms, the dominant part has concentrated via web-based networking media as advertising apparatuses and likewise recommend to business people who have utilized twitter that "business visionary discovered that he could interface with his clients considerably more successfully than he had been doing (Fischer & Reuber (2010).

These days, small companies utilize a collection of consumptions via media interaction to improve their business just as for attention. As countless related fields join their pages, they can possibly gain more and offer information with one another, subsequent in the extension of their organizations. With the progression of time, presumably that innovation is winding up quicker and quicker just as making the

lives of people simpler, however then again, individuals looking for circumstances exploit innovation and carry new plans to the fore. Business visionaries use Facebook to associate with their powerless binds or attempt to build contact with existing solid ties. Free organizations use web-based systems administration more since it is connected to blending and bestowing experiences. These ends can be imparted as created areas as blog passages or comments, video presentations, and choices by means of online systems administration media goals. Moreover, these assumptions are quick and unfiltered. The straightforwardness of these ends is one of the essential change's web-based life familiar with the association among associations and customers (Shabbir, 2015a).

Business visionaries use web-based life as an exhibiting gadget through this gadget they can collect quickly an arrangement of supporters, which is imperative for business advancement. These supporters keep bringing new customers/associations for free endeavor representatives by insinuating them to other individuals. Online makes a whole deal association among associations and customers. Nevertheless, there are a couple of issues related to internet organizing. First associations concerning the execution of web put together life need concurrences with respect to the most ideal approach to complete different activities as the stages and the progressions are so novel, and there has not been a sensible guideline for associations on the most capable technique to utilize them. Generally, associations use their own preliminary method to manage achieve an unrivaled result and this has by somehow made the task also testing. Second realizing Social Media is the task of defining a sensible objective and incalculable associations join the web-based life reliably. In any case, the people who keep up their online proximity feasibly are modestly low; this is guaranteeing countless those associations dispatch their electronic life fights without clear indispensable goals. Gillin (2009) explains that most associations need to investigate various roads with respect to the development or conceivably they are pulled in by the negligible exertion of entry. Additionally, he prescribes testing is better than anything inaction, yet it is more brilliant to have a course of action. As indicated by Tuten (2008), a business is to benefit by online life advancing, the underlying stage in the process should be to define objectives for the campaign, as setting objective is a fundamental development in any correspondence and promoting orchestrating process. According to him, any advancing exertion without an

objective can't be evaluated and surveyed, and aside from in the event that we can measure the presentation, it might be seen as an abuse of effort.

2.2 Empirical Review

Whitla (2009) examined the application of crowdsourcing in marketing activities. Content analysis was used in the study. It was revealed that few firms are employing crowdsourcing to locate large numbers of individuals willing to complete largely menial repetitive tasks for limited financial compensation.

Saxton, Oh and Kishore (2010) carried out the rules of crowdsourcing: models, issues, and systems of control. Multiple search sampling was used and analyze 103 employing content analysis methods. From the analysis, the study developed a taxonomic theory of crowdsourcing by organizing the empirical variants in nine distinct forms of crowdsourcing models.

Simula, *et al.* (2013) used industrial marketers on crowdsourcing in the social media in Finland. The results reveal significant practical challenges to overcome before social media can be effectively utilized as a fully functioning crowdsourcing enabler.

Van-der-Bank & Van-der-Bank (2015) wrote on the impact of social media in connection with the advantages and disadvantages in South Africa. The study used content analysis and it showed that empirical survey affirms the significance of bunches in economic development, contributing emphatically to the development procedure, encouraging associations with different organizations and foundations to more likely address consumer needs, diverting learning and data.

Adegbuyi, Akinleye and Samuel (2015) carried out an investigation on social media marketing on business performance of small scale in Nigeria. They used ANOVA, correlation and other statistical tools in the study. Their findings reveal that networking and creating relationships with other businesses, increases brand exposure.

Kavaliova, Virjee, Maehle and Kleppe (2016) investigated crowdsourcing innovation and product development. The study used game elements and design techniques to motivate contributions to a crowdsourcing project. The findings revealed that consumers are fun seekers. They will carry out activities without expecting anything in return, if they perceive it as being fun.

Lam (2016) carried out an investigation on develop and commercialize new ICT using social media. The study used qualitative research approach and the findings show that the platform is generated to help companies to better understand development process and practices that need show certain phases of the process and to accelerate the innovation in entering a new market.

Shabbir, Ghazi and Mehmood (2016) studied social media applications on small business entrepreneurs in Pakistan. Content survey type of analysis was employed, and the report shows that there exists positive impact of social media usages on small business entrepreneurs as well as they are highly motivated to use these platforms.

Srinivasan, Bajaj and Bhanot (2016) investigated social media marketing strategies of MSMEs on customer acquisition and retention in India using exploratory research design. The findings reveal that social media involvement has a strong impact on brand awareness and trust, as result, influences on customer acquisition and customer retention.

Lionel (2017) examined that impact of social media on innovation in SMEs businesses in UK. Netnography and interview type of qualitative survey were used in the study. The research identified community culture and company size as the factors that are likely to impact the successful adoption of the model in organizations.

Lakshmi, Mahboob and Choudhary (2017) carried out an investigation on social media impact on SMEs in Arab world using quantitative approach. The result shows that electronic dissemination of media has had a powerful impact on the way people communicate for personal reasons, school and even business.

2.2.1 Empirical summary

Table 2.1: Summary of Empirical review

Author's Name	Country	Topic	Method
Whitla (2009)		examined the application of crowdsourcing in marketing activities.	Content analysis
Saxton, *et al.* (2010)		The rules of crowdsourcing: models, issues, and systems of control.	Multiple search sampling
Simula, Tollinen and Karjaluoto (2013)	Finland	Industrial marketers on crowdsourcing in the social media.	Qualitative Analysis

Table 2.1 (con.): Summary of Empirical review

Author's Name	Country	Topic	Method
Van-der-Bank et al (2015)	South Africa	Impact of social media in connection with the advantages and disadvantages in South Africa	Content Analysis
Adegbuyi, Akinleye Samuel (2015)	Nigeria	carried out an investigation on social media marketing on business performance of small scale.	ANOVA, correlation and other statistical tools in the study.
Kavaliova, Virjee, Maehle and Kleppe (2016)		Crowdsourcing innovation and product development.	Game elements and design techniques
Lam (2016)		Develop and commercialize new ICT using social media.	Qualitative research approach
Shabbir, Ghazi and Mehmood (2016)	Pakistan	Social media applications on small business entrepreneurs in Pakistan.	Content survey
Srinivasan, Bajaj and Bhanot (2016)	India	Social media marketing strategies of MSMEs on customer acquisition and retention	Exploratory research design
Lionel (2017)	UK	Impact of social media on innovation in SMEs businesses in UK.	Netnography and interview type of qualitative survey
Lakshmi *et al.* (2017)	Arab	carried out an investigation on social media impact on SMEs in Arab world.	Quantitative approach
Allen, Chandrasekaran, and Basuroy (2018)		Design crowdsourcing: the impact on new product performance of sourcing design solutions from the crowd.	Qualitative Analysis

Source: Author's computation (2019)

2.3 Theoretical Framework

2.3.1 Self-determination hypothesis

Self-determination hypothesis describes that leisure exercises, virtual co-creation can be a component of two kinds of purchaser inspirations such as intrinsic and extrinsic inspirations. intrinsic propelled shoppers play out the action for their own purpose and favor experiential-situated practices (Kavaliova, Virjee, Maehle & Kleppe, 2016). Intrinsic inspiration powers diligent commitment to the network, commitment, fun, veritable enthusiasm for the medium and the substance, less

purposeful and direction, time filling and recreational action, and indulgent satisfaction. Interestingly, outwardly persuaded customers play out an action as an intends to accomplish some distinct target or individual advantages.

Such practices are portrayed by situational contribution, specific and purposeful commitment, cognizance, and by enthusiasm for substance, work, and utilitarian advantages. Extrinsic inspirations animate an individual for an activity, while prizes and objectives fortify the conduct. Be that as it may, some extrinsic inspirations can be disguised and in this way lead to dynamic individual duty. For this situation, an individual acknowledges the worth or utility of an errand and the extrinsic objective ends up self-embraced and accordingly received with a feeling of volition (Deci and Ryan, 2000). In online networks, intrinsic inspiration commands while extrinsic incentives are generally constrained to little money related prizes or social rewards, for example, a positive notoriety in the network.

In view of the rich collection of inspiration investigate accessible in related fields, for example, customer development and shopper imagination, Füller (2010) recognized 10 thought process classes that clarify why customers get engaged with virtual co-creation. These classes are fun loving errand, interest, charitableness network support, making companions, self-viability, data chasing, ability improvement, acknowledgment perceivability, individual need-disappointment, and pay fiscal reward. Brabham (2008) contends that the longing to acquire cash, build up one's innovative abilities, and systems administration outranked other selfless inspirations while Lakhani, Jeppesen, Lohse and Panetta, (2007) accentuates the significance of the pleasure in critical thinking, its multifaceted nature, using the spare time, and the money related reward. The past research on the Threadless people group has uncovered drivers, for example, the chance to profit, to improve imaginative aptitudes and for possible independent plan work, enslavement, and the adoration for the network (Brabham, 2008).

Practically speaking, it is commonly a blend of a few inherent and outward thought processes that urge supporters of get associated with substance creation exercises. For example, there may be a few individuals that are principally inspired by ideological reasons, while others may be propelled by network association or expertise advancement (Füller, 2010). Moreover, a shopper's inspiration for interest in an online network can change additional time, from extraneous inspiration through

the esteem from one's own utilization of created answer for natural inspiration from delight and fun over the long haul (Shah, 2006).

2.3.2 Social network hypothesis

The hypothesis of social network sees social connections as far as hubs and ties. Hubs are the individual entertainers inside the systems, and ties are the connections between the on-screen characters. There exist a few sorts of ties between the hubs. In its most straightforward structure, an informal community is a guide of all the pertinent ties between the hubs being contemplated. The system could likewise be utilized to manage the social capital of individual entertainers. These ideas are frequently appeared in an interpersonal organization outline, where hubs are the focuses and ties are the lines (Shafie et al., 2011).

As per Scott (2000), the informal organization approach began in the numerical chart hypothesis and recognized history in the sociologies and brain science where it has been completed to analyze human social association. The primary qualities of the methodology are the possibility to address populace level or cross-populace level issues by structure up complex social structures from individual level cooperation's. SNT contemplates singular clients and the connection between these clients. In the hypothesis, feeble binds allude to easygoing connections though solid binds allude to cozy connections. The connections between the hubs in informal organization destinations empower one to comprehend people's decisions in their associations with others. In online interpersonal organization, there are vaster more fragile ties among the hubs (Shafie et al., 2011).

The intensity of informal organization hypothesis originates from its distinction from customary sociological examinations, which accept that it is the characteristics of individual on-screen characters that issue (Stutzman, 2006). Interpersonal organization hypothesis delivers another view, where the properties of people are less significant than their connections and ties with different on-screen characters inside the system. In Krause et al. (2007) see, this methodology has ended up being valuable for clarifying some true wonders, however leaves less space for individual organization, the capacity for people to impact their prosperity; such a large amount of it rests inside the structure of their system.

3. METHODOLOGY

3.1 Research Design

This study used random sampling technique and analytical survey. The logical overviews alluded to this analytic examination endeavor to talk about the purpose behind specific circumstances. In this methodology at least two factors are typically inspected to test look into theories. The outcomes enable scientists to inspect the interrelationships among factors and to draw logical inductions.

3.2 Data and Sample Size

Primary data shall be employed in this study using descriptive research design. The descriptive research will describe the data and characteristics about what is being studied. In this study, non-probability convenience sampling technique was used, and the target population was 100 for each of the two-local government of Lagos state, Nigeria. In total, there were 200 respondents who will be participating in the study.

3.3 Research Instrument

The questionnaire shall be constructed using the Likert's rating scale of 5 points that is Strongly Agree, Agree, Neutral, Strongly Disagree, & Disagree. This questionnaire will be divided into two sections. Section A consists of the demographic characteristics of the respondents (location, sex, academic and professional qualification of respondents) while Section B will contain information on respondents' views relating to crowdsourcing and social media of new product development.

3.4 Study Validity

The construct validity of the research instrument will be submitted to factor-analysis. The responses from the respondents will be analysed using coefficient alpha (Cronbach's alpha) and based on the rule of thumb, a Cronbach-Alpha factor above

0.5 is considered reliable. Regression analysis shall be used to achieve the study goal.

3.5 Reliability

To certify the reliability of the instrument in this study, the research instrument was subjected to test-retest technique, whereby the instrument was administered to two local government area which are Ikeja Local Government and Lagos Island Local Government at random during the process. Their response was analyzed using and based on the rule of thumb, a Cronbach-Alpha above 0.5 is considered reliable.

3.6 Regression Model

NPSM = f(CS, BP, FP, CC)

Where

NPSM = New Product Social Media

CS = Crowdsourcing

BP = Business Productivity

FP = Firm Performance

CC = Customer Convenience

3.7 Description and Measurement of Variable

Table 3.1: Variable Descriptions

Variable	Description
New Product Social Media (NPSM)	The new product social-media is the means of using social-media to showcase in product and this is used as the dependent variable in this study.
Crowdsourcing (CS)	Crowdsourcing is used as the independent variable as one of the determinants of new product social media
Business Productivity BP)	Business productivity is used as the independent variable
Firm Performance (FP)	Firm performance is used as the independent variable
Customer Convenience (CC)	Customer convenience is also used as the independent variable

Source: Author's compilation (2019)

3.8 *A-priori* Expectation

The a priori expectation shows the sign independent variable(s) are expected to show different to dependent variable. The mathematical expression is represented as;

- $\frac{\partial \text{NPSM}}{\partial \text{CS}} > 0$, crowdsourcing is expected to be positive to new product using social media
- $\frac{\partial \text{NPSM}}{\partial \text{BP}} > 0$, business productivity is expected to be either positive or negative to new product using social media.
- $\frac{\partial \text{NPSM}}{\partial \text{FP}} > 0$, firm performance is expected to be positive to new product using social media.
- $\frac{\partial \text{NPSM}}{\partial \text{CC}} >$ or < 0, customer convenience is expected to be either positive or negative to new product using social media.

4. RESULT DISCUSSION

This section discusses the presentation of data and findings using the data gathered from the respondents of the selected state in Nigeria. However, the analyses were presented and discussed as follows:

4.1 Demographic Analysis

Table 4.1: Gender

	Frequency	Percent	Valid %	Cumulative %
Male.	113	56.2	56.2	56.2
Female.	88	43.8	43.8	100.0
Total.	201	100.0	100.0	

Source: Writer's Computation (2019)

The report shows the gender participants of study. The result reveals 113 representing 56.2percent are male while 88 respondents representing 43.8percent are female, which was meaning that male participants are more than the female counterpart during the survey.

Table 4.2: Age of Respondent

	Frequency	Percent	Valid %	Cumulative %
20- 29yrs	77	38.3	38.3	38.3
30-39yrs	110	54.7	54.7	93.0
40-49yrs	10	5.0	5.0	98.0
50yrs and above	4	2.0	2.0	100.0
Total	201	100.0	100.0	

Source: Writer's Computation (2019)

This shows that 77 participants with 38.3percent are between age 20-29years, 110 respondents indicating 54.7percent are between age 30-39years, 10 respondents representing 5.0percent are between age 40-49years while 50years and above has 4 respondents indicating 2.0percent. Meanwhile, the age between 30-39years has the

highest respondents, followed by 200-29 years, 40-49 years and above 50 respectively.

Table 4.3: Educational Qualification

	Frequency	Percent	Valid %	Cumulative %
WASC or GCE or NABTEB or NECO O Level	9	4.5	4.5	4.5
NCE or OND or HSC or GCE A level	14	7.0	7.0	11.4
HND or BSC or B.ED	119	59.2	59.2	70.6
MBA or MSC or M.ED	58	28.9	28.9	99.5
None of the above	1	.5	.5	100.0
Total	201	100.0	100.0	

Source: Writer's Computation (2019)

The above table reveals the result of the education qualification of the respondents. The result shows that 9 respondents indicating 4.5percent are WASC or GCE or NABTEB or NECO O Level holders, 14 respondents with 7.0percent are NCE or OND or HSC or GCE A level, 119 respondents representing 59.2percent are HND/BSC/B.Ed, 58 respondents representing 28.9percent are MBA or MSC or M.ED holders, while 1 respondent with 0.5percent has none of the above. This means that majority of the respondents have HND/BSc/B.ED followed by M.Sc/MBA, NCE or OND or HSC or GCE A level, WASC or GCE or NABTEB or NECO O Level and None of the above respectively.

Table 4.4: What is your occupation?

	Frequency	Percent	Valid %	Cumulative %
Entrepreneur	106	52.7	52.7	52.7
Unemployed	25	12.4	12.4	65.2
Paid worker	70	34.8	34.8	100.0
Total	201	100.0	100.0	

Source: Writer's Computation (2019)

The result of the table presented above shows that 106 respondents with 52.7% are entrepreneur, 25 of the respondents indicating 12.4% are unemployed while 70 respondents representing 34.8% are paid worker. This connotes that entrepreneur respondents have the higher percentage, followed by paid worker and unemployed respectively.

Table 4.5: How many social media platforms do you use?

	Frequency	Percent	Valid %	Cumulative %
One	6	3.0	3.0	3.0
Two	29	14.4	14.4	17.4
Three	82	40.8	40.8	58.2
Four	84	41.8	41.8	100.0
Total	201	100.0	100.0	

Source: Writer's Computation (2019)

Table 4.5 show how many social media platforms do the respondents and the result reveals that 6 respondents with 3.0percent are one social media user, 29 respondents indicating 14.4percent are using two social media, 82 respondents representing 40.8percent are using three social media, while 84 respondents with 41.8percent are using four social media. This implies that majority of the respondents have four social media followed by three, two and one social media user respectively.

Table 4.6: What is your most frequently used social media platform?

	Frequency	Percent	Valid %	Cumulative %
Facebook	67	33.3	33.3	33.3
Twitter	20	10.0	10.0	43.3
Instagram	84	41.8	41.8	85.1
YouTube	3	1.5	1.5	86.6
Others	27	13.4	13.4	100.0
Total	201	100.0	100.0	

Source: Writer's Computation (2019)

The most frequently used social media platform by respondents presented in table 4.5 shows that 67 respondents with 33.3percent mostly used Facebook, 20 respondents representing 10.0percent mostly used Twitter, 84 respondents with 41.8percent mostly used Instagram, 3 respondents indicating 1.5percent mostly used YouTube while 27 respondents with 13.4percent used other social media platforms. This means that majority of the respondents mostly used Instagram, followed by Facebook, others, Twitter and YouTube respectively.

Table 4.7: How often do you visit social media?

	Frequency	Percent	Valid %	Cumulative %
Hourly	100	49.8	49.8	49.8
Daily	93	46.3	46.3	96.0
Weekly	7	3.5	3.5	99.5
Monthly	1	.5	.5	100.0
Total	201	100.0	100.0	

Source: Writer's Computation (2019)

The table above reveals that 100 respondents representing 49.8percent visit social media hourly, 93 respondents with 46.3percent visit social media daily, 7 respondents with 3.5percent visit weekly, while 1 respondent with 0.5percent visit social media monthly. However, majority of the visit social media hourly, followed by daily visit, weekly and monthly respectively.

Table 4.8: Which form of crowdsourcing on social media channel of promotion is more effective

	Frequency	Percent	Valid %	Cumulative %
Micro-blogging	7	3.5	3.5	3.5
Social Network	142	70.6	70.6	74.1
Media sharing	46	22.9	22.9	97.0
Others	6	3.0	3.0	100.0
Total	201	100.0	100.0	

Source: Writer's Computation (2019)

7 respondents representing 3.5percent chose micro-blogging as the form of crowdsourcing on social media channel of promotion is more effective, 142 respondents with 70.6percent chose social network, 46 respondents indicating 22.9percent chose media sharing while 6 respondents with 3.0percent chose other means. This connotes that social-network is effective, followed by media sharing, micro-blogging and others.

4.2 Frequency Analysis of the Questions

Table 4.9: Social media platform is favorable for new product development

	Frequency	Percent	Valid %	Cumulative %
Strongly Agree,	97	48.3	48.3	48.3
Agree.	38	18.9	18.9	67.2
Neutral	23	11.4	11.4	78.6
Disagree.	20	10.0	10.0	88.6
Strongly, Disagree	23	11.4	11.4	100.0
Total.	201	100.0	100.0	

Source: Writer's Computation (2019)

Table 4.9 reveals 97 respondents with 48.3percent strongly agreed social media platform is favorable for new product development, 38 respondents indicating 18.9 percent agreed, 23 respondents representing 11.4percent are neutral, 20 participants with 10.0percent disagreed while 23 participants with 11.4percent strongly disagreed. This means that majority agreed that social-media platform is favorable for new product upbringing.

Table 4.10: Social media platform is favorable for new product development

	Frequency	Percent	Valid %	Cumulative %
Strongly. Agree	97	48.3	48.3	48.3
Agree	38	18.9	18.9	67.2
Neutral	23	11.4	11.4	78.6
Disagree.	20	10.0	10.0	88.6
Strongly, Disagree	23	11.4	11.4	100.0
Total	201	100.0	100.0	

Source: SPSS 20.0

This shows that 97 respondents representing 48.3percent strongly agreed social media platform is favorable for new product development, 38 respondents with 18.9percent agreed, 23 respondents representing 11.4percent are neutral, 20 respondents indicating 10.0percent disagreed, while 23 respondents with 11.4percent strongly disagreed. This indicating that majority supported that social media platform is favorable for new product start-up.

Table 4.11: Crowdsourcing is only effective on social media in creating new product

	Frequency	Percent	Valid %	Cumulative %
Strongly. Agree.	38	18.9	18.9	18.9
Agree	52	25.9	25.9	44.8
Neutral	63	31.3	31.3	76.1
Disagree.	24	11.9	11.9	88.1
Strongly, Disagree	24	11.9	11.9	100.0
Total	201	100.0	100.0	

Source: Writer's Computation (2019)

38 respondents representing 18.9percent strongly agreed that crowdsourcing is only effective on social media in creating new product, 52 respondents indicating 25.9percent agreed, 63 respondents with 31.3percent are neutral, 24 respondents with 11.9percent disagreed while 24 participants with 11.9percent strongly disagreed to the subject matter. This means that crowdsourcing is only effective on social media in creating new product.

Table 4.12: Customers get to know new product via social media

	Frequency	Percent	Valid %	Cumulative %
Strongly. Agree.	79	39.3	39.3	39.3
Agree,	54	26.9	26.9	66.2
Neutral	25	12.4	12.4	78.6
Disagree,	22	10.9	10.9	89.6
Strongly, Disagree,	21	10.4	10.4	100.0
Total	201	100.0	100.0	

Source: Writer's Computation (2019)

Table 4.12 reveals 79 respondents with 39.3percent strongly agreed that customers get to know new product via social media, 54 respondents indicating 26.9 percent agreed, 25 respondents representing 12.4 percent are neutral, 22 participants indicating 10.9 percent disagreed while 21 participants with 10.4percent strongly disagreed. This means that majority agreed customers get to know new product via social media.

Table 4.13: Crowdsourcing has impacted positive to many organization

	Frequency	Percent	Valid %	Cumulative %
Strongly Agree.	74	36.8	36.8	36.8
Agree.	51	25.4	25.4	62.2
Neutral	39	19.4	19.4	81.6
Disagree	23	11.4	11.4	93.0
Strongly. Disagree	14	7.0	7.0	100.0
Total	201	100.0	100.0	

Source: Writer's Computation (2019)

This shows that 74 respondents representing 36.8percent strongly agreed that crowdsourcing has impacted positive to many organization, 51 respondents with 25.4percent agreed, 39 respondents representing 19.4percent are neutral, 23 respondents indicating 11.4percent disagreed, while 14 respondents with 7.0percent strongly disagreed. This indicating that majority supported that crowdsourcing has impacted positive to many organizations.

Table 4.14: Effective use of social media increases business productivity and decreases cost of production

	Frequency	Percent	Valid %	Cumulative %
Strongly Agree.	55	27.4	27.4	27.4
Agree,	49	24.4	24.4	51.7
Neutral	44	21.9	21.9	73.6
Disagree	28	13.9	13.9	87.6
Strongly. Disagree,	25	12.4	12.4	100.0
Total	201	100.0	100.0	

Source: Writer's Computation (2019)

55 respondents representing 27.4percent strongly agreed that effective use of social media increases business productivity and decreases cost of production, 49 respondents indicating 24.4percent agreed, 44 respondents with 21.9percent are neutral, 28 of the respondents with 13.9percent disagreed while 25 participants indicating 12.4percent strongly disagreed to the subject matter. This means that majority agreed that effective use of social media increases business productivity and decreases cost of production.

Table 4.15: Daily or weekly programme on social media attracts more customers to participate in crowdsourcing

	Frequency	Percent	Valid %	Cumulative %
Strongly Agree.	73	36.3	36.3	36.3
Agree	56	27.9	27.9	64.2
Neutral	37	18.4	18.4	82.6
Disagree	18	9.0	9.0	91.5
Strongly Disagree.	17	8.5	8.5	100.0
Total	201	100.0	100.0	

Source: Writer's Computation (2019)

Table 4.6 reveals that 73 respondents with 36.3percent strongly agreed that daily or weekly programme on social media attracts more customers to participate in crowdsourcing, 56 respondents indicating 27.9percent agreed, 37 respondents representing 18.4percent are neutral, 18 participants with 9.0percent disagreed while 17 participants with 8.5percent strongly disagreed. This means that majority accepted that daily or weekly programme on social media attracts more customers to participate in crowdsourcing.

Table 4.16: Despite the growth rate of online advertising, other forms of advertising is the still the most used form of crowdsourcing

	Frequency	Percent	Valid %	Cumulative %
Strongly Agree	31	15.4	15.4	15.4
Agree.	53	26.4	26.4	41.8
Neutral	64	31.8	31.8	73.6
Disagree.	36	17.9	17.9	91.5
Strongly Disagree.	17	8.5	8.5	100.0
Total	201	100.0	100.0	

Source: Writer's Computation (2019)

This shows that 31 respondents representing 15.4percent strongly agreed that the growth rate of online advertising, other forms of advertising is the still the most used form of crowdsourcing, 53 respondents with 26.4percent agreed, 64 respondents representing 31.8percent are neutral, 36 respondents indicating 17.9percent disagreed, 17 respondents with 8.5percent strongly disagreed. This indicating that both the online advertising and other forms of advertising are being used as form of crowdsourcing.

Table 4.17: Most businesses are using social media in promoting their new product

	Frequency	Percent	Valid %	Cumulative %
Strongly. Agree.	88	43.8	43.8	43.8
Agree	54	26.9	26.9	70.6
Neutral	19	9.5	9.5	80.1
Disagree,	20	10.0	10.0	90.0
Strongly, Disagree.	20	10.0	10.0	100.0
Total	201	100.0	100.0	

Source: Writer's Computation (2019)

88 respondents representing 43.8percent strongly agreed that most businesses are using social media in promoting their new product, 54 respondents indicating 26.9percent agreed, 19 respondents with 9.5percent are neutral, 20 respondents with 10.0percent disagreed and 20 participants representing 10.0percent strongly-disagreed to the subject matter. This means that most businesses are using social media in promoting their new product.

Table 4.18: Network fluctuations hinder the use of crowdsourcing and this tune discourage participants

	Frequency	Percent	Valid %	Cumulative %
Strongly, Agree.	36	17.9	17.9	17.9
Agree,	49	24.4	24.4	42.3
Neutral	69	34.3	34.3	76.6
Disagree,	29	14.4	14.4	91.0
Strongly, Disagree.	18	9.0	9.0	100.0
Total	201	100.0	100.0	

Source: Writer's Computation (2019)

Table 4.18 reveals that 36 respondents with 17.9percent strongly agreed that network fluctuations hinder the use of crowdsourcing and this tune discourage participants, 49 respondents indicating 24.4percent agreed, 69 respondents representing 34.3percent are neutral, 29 participants with 14.4percent disagreed and 18 participants with 9.0 percent strongly disagreed. This means that many agreed that network fluctuations hinder the use of crowdsourcing and this tune discourage participants.

Table 4.19: Customer receives promo by using or buying product(s) through social media

	Frequency	Percent	Valid %	Cumulative %
Strongly Agree.	45	22.4	22.4	22.4
Agree	54	26.9	26.9	49.3
Neutral	51	25.4	25.4	74.6
Disagree.	31	15.4	15.4	90.0
Strongly Disagree.	20	10.0	10.0	100.0
Total	201	100.0	100.0	

Source: Writer's Computation (2019)

This shows that 45 respondents representing 22.4percent strongly agreed that customer receives promo by using or buying product(s) through social media, 54 respondents with 26.9percent agreed, 51 respondents representing 25.4percent are neutral, 31 respondents indicating 15.4percent disagreed, 20 respondents with 10.0percent strongly disagreed. This indicating that half of the majority supported that customer receives promo by using or buying product(s) through social media.

Table 4.20: The quality of product customers received through social media are exceptional

	Frequency	Percent	Valid %	Cumulative %
Strongly. Agree.	28	13.9	13.9	13.9
Agree,	42	20.9	20.9	34.8
Neutral,	68	33.8	33.8	68.7
Disagree,	41	20.4	20.4	89.1
Strongly, Disagree,	22	10.9	10.9	100.0
Total.	201	100.0	100.0	

Source: Writer's Computation (2019)

28 respondents representing 13.9percent strongly agreed that the quality of product customers received through social media are exceptional, 42 respondents indicating 20.9percent agreed, 68 respondents with 33.8percent are neutral, 41 respondents indicating 20.4percent disagreed while 22 participants with 10.9percent strongly-disagreed to the subject matter. This means that the quality of product customers received through social media are not that exceptional.

Table 4.21: The use of social media for crowdsourcing increases firm's performance

	Frequency	Percent	Valid %	Cumulative %
Strongly. Agree.	48	23.9	23.9	23.9
Agree.	63	31.3	31.3	55.2
Neutral,	56	27.9	27.9	83.1
Disagree,	21	10.4	10.4	93.5
Strongly, Disagree.	13	6.5	6.5	100.0
Total	201	100.0	100.0	

Source: Writer's Computation (2019)

Table 4.21 reveals 48 respondents with 23.9percent strongly agreed that using social media for crowdsourcing increases firm's performance, 63 respondents indicating 31.3percent agreed, 56 respondents representing 27.9percent are neutral, 21 respondents representing 10.4percent disagreed while 13 respondents with 6.5percent strongly disagreed. This means that majority agreed the use of social media for crowdsourcing increases firm's performance.

Table 4.22: Traditional marketing includes print, radio, television and outdoor ways for publicizing are the tools of crowdsourcing rather than social media

	Frequency	Percent	Valid %	Cumulative %
Strongly Agree,	21	10.4	10.4	10.4
Agree,	26	12.9	12.9	23.4
Neutral,	68	33.8	33.8	57.2
Disagree,	53	26.4	26.4	83.6
Strongly, Disagree	33	16.4	16.4	100.0
Total	201	100.0	100.0	

Source: Writer's Computation (2019)

This shows that 21 respondents representing 10.4percent strongly agreed that traditional marketing includes print, radio, television and outdoor ways for publicizing are the tools of crowdsourcing rather than social media, 26 respondents with 12.9percent agreed, 68 respondents representing 33.8percent are neutral, 53 respondents indicating 26.4percent disagreed, 33 respondents with 16.4percent strongly disagreed. This indicating that majority disagreed that traditional marketing including print, radio, television and outdoor ways for publicizing are the tools of crowdsourcing rather than social media.

Table 4.23: Crowdsourcing via social media increases customer convenience and promote new product development

	Frequency	Percent	Valid %	Cumulative %
Strongly, Agree.	63	31.3	31.3	31.3
Agree,	60	29.9	29.9	61.2
Neutral,	46	22.9	22.9	84.1
Disagree,	17	8.5	8.5	92.5
Strongly, Disagree.	15	7.5	7.5	100.0
Total	201	100.0	100.0	

Source: Writer's Computation (2019)

63 respondents representing 31.3percent strongly agreed that crowdsourcing via social media increases customer convenience and promote new product development, 60 respondents indicating 29.9percent agreed, 46 respondents with 22.9percent are neutral, 17 participants with 8.5 disagreed while 15 participants representing 7.5percent strongly-disagreed to the subject matter. This means that crowdsourcing via social media increases customer convenience and promote new product development.

Table 4.24: New product development depend mostly on crowdsourcing using social media platform

	Frequency	Percent	Valid %	Cumulative %
Strongly, Agree.	39	19.4	19.4	19.4
Agree,	57	28.4	28.4	47.8
Neutral,	65	32.3	32.3	80.1
Disagree,	27	13.4	13.4	93.5
Strongly, Disagree	13	6.5	6.5	100.0
Total	201	100.0	100.0	

Source: SPSS 20.0

Table 4.24 reveals that 39 respondents with 19.4percent strongly agreed that new product development depend mostly on crowdsourcing using social media platform, 75 respondents indicating 28.4percent agreed, 65 respondents representing 32.3percent are neutral, 27 respondents representing 13.4percent disagreed while 13 respondents with 6.5percent strongly disagreed. This means that majority agreed that New product development depend mostly on crowdsourcing using social media platform.

4.3 Reliability Testing

Table 4.25: Result

Cronbach's Alpha	No. of Items
.906	15

Source: Writer's Computation (2019)

The questionnaire was subjected to test-retest analysis to confirm the reliability of the question. The test of Cronbach-Alpha was employed to carry out the analysis and it shows the value of 0.906 (90.6) indicating that the questions have above 90% reliability.

4.4 Correlation Analysis

Table 4.26: Correlations

		NPSM	CS	BP	FP	CC
NPSM	Pearson. Correlation,	1	.625**	.382**	.415**	.511**
	Sig. (2tailed)		.000	.000	.000	.000
	N.	201	201	201	201	201
CS	Pearson. Correlation.	.625**	1	.581**	.505**	.576**
	Sig. (2tailed)	.000		.000	.000	.000
	N.	201	201	201	201	201
BP	Pearson. Correlation,	.382**	.581**	1	.459**	.386**
	Sig. (2tailed)	.000	.000		.000	.000
	N.	201	201	201	201	201
FP	Pearson. Correlation,	.415**	.505**	.459**	1	.511**
	Sig. (2tailed)	.000	.000	.000		.000
	N.	201	201	201	201	201
CC	Pearson. Correlation.	.511**	.576**	.386**	.511**	1
	Sig. (2-tailed).	.000	.000	.000	.000	
	N.	201	201	201	201	201

Source: Writer's Computation (2019)

The table above shows the result of correlation report among the variables employed. It was revealed that new product social media (NPSM) and crowdsourcing (CS) has

the value of 0.625 and the p-value is 0.000, indicating that here exist a positive and significant connection between the two variables. NPSM and BP show the correlation value of 0.382 and the significant value of 0.000, signifying that positive association exist between NPSM and BP. The correlation value of NPSM and firm performance (FP) is 0.415 with significant value of 0.000, indicating NPSM and FP exist positive relationship between each other. However, the result of NPSM and customer convenience show correlation value of 0.511 with significant value of 0.000 showing that there exists positive correlation between the two variables.

4.5 Report of Regression

Table 4.27: Model

	R	R-Square	Adjusted R-Square	Std. Error
1	.655[a]	.428	.417	1.081

a. Predictors: (Constant), CC, BP, FP, CS
Source: Writer's Computation (2019)

The R-square value of the above table shows the value of 0.428 (42.8). this implies that the independent variables could control about 42.8 percent variation in the dependent variable.

Table 4.28: ANOVA

		Sum sq	d.f	Mean-Sq	F-test	Sig.
1	Reg-ression	171.740	4	42.935	36.721	.000
	Residual	229.166	196	1.169		
	Total	400.905	200			

a. Dependent Variable: NPSM

b. Predictors: (Constant), CC, BP, FP, CS
Source: Writer's Computation (2019)

The ANOVA result presented above shows sum of the square regression (171.740), the residual (229.166), the mean square (42.935) and the F-statistics. The result of the F-statistic value is 36.721 with the significant value of 0.000, implying that the independent variables can influence the predict variable.

Table 4.29: Coefficients

		Unstandardized-Coefficients		Standardized-Coefficients	t	Sig.
		B	**Std. Error**	**Beta**		
1	(Constant)	.212	.206		1.029	.305
	CS	.532	.086	.473	6.209	.000
	BP	-.005	.072	-.005	-.074	.941
	FP	.093	.083	.075	1.115	.266
	CC	.236	.081	.202	2.902	.004

a. Dependent Variable: NPSM
Source: Writer's Computation (2019)

The regression coefficient presented in Table 4.29 reveals the relationship between the dependent variable (NPSM) and independent variables (CS, BP, FP, and CC). it shows that the coefficient at constant is 0.212 and the significant value is 0.305, indicating that at constant, there exist a positive but insignificant impact on the dependent variable. Furthermore, crowdsourcing coefficient is 0.532 with significant value is 0.000, implying that crowdsourcing (CS) exhibits a positive and momentous effect on the new product social media. The business productivity (BP) coefficient value is -0.005 with significant value of 0.941, indicating that business productivity exhibits negative and insignificant impact on new product social media. The coefficient value of firm performance is 0.093 with the significant value of 0.266, implying that firm performance has a positive impact but not significant to influence new product social media. Also, the coefficient value of customer convenience is 0.236 with significant value of 0.004, indicating that customer convenience has positive and significant impact on new product social media during the study period.

4.6 Discussion of Findings

Frequency analysis, reliability testing, correlation test and regression were used. It was found out that male respondents are more than the female counterpart during the survey, the age between 30-39years has the highest respondents, followed by 200-29years, 40-49years and above 50 respectively. The majority of the respondents have HND/BSc/B.ED followed by M.Sc./MBA, NCE or OND or HSC or GCE A level, WASC or GCE or NABTEB or NECO O Level and None of the above. The frequency also shows that entrepreneur respondents have the higher percentage, followed by paid worker and unemployed, most of the respondents have four social

media followed by three, two and one social media user respectively. It further revealed that majority of the respondents mostly used Instagram, followed by Facebook, others, Twitter and YouTube respectively, majority of the visit social media hourly, followed by daily visit, weekly and monthly, social network is the most effective, followed by media sharing, micro-blogging and others.

The frequency analysis of the questions show that majority agreed that social media platform is favorable for new product development, supported that social media platform is favorable for new product development, crowdsourcing is only effective on social media in creating new product, the majority agreed customers get to know new product via social media. It also indicated that majority supported that crowdsourcing has impacted positive to many organizations, majority agreed that effective use of social media increases business productivity and decreases cost of production, majority accepted that daily or weekly programme on social media attracts more customers to participate in crowdsourcing, both the online advertising and other forms of advertising are being used as form of crowdsourcing, and most businesses are using social media in promoting their new product.

The majority agreed that network fluctuations hinder the use of crowdsourcing and this tune discourage participants, half of the majority supported that customer receives promo by using or buying product(s) through social media, the quality of product customers received through social media are not that exceptional, that majority agreed the use of social media for crowdsourcing increases firm's performance, the majority disagreed that traditional marketing includes print, radio, television and outdoor ways for publicizing are the tools of crowdsourcing rather than social media, crowdsourcing via social media increases customer convenience and promote new product growth and majority agreed that new product set-up depend mostly on crowdsourcing using social media platform.

The result of the correlation analysis revealed that new product social media (NPSM) and crowdsourcing (CS) has positive and significant connection between the two variables, NPSM and BP shows a positive connection between NPSM and BP, the correlation report of NPSM and firm performance (FP) depicts a positive relationship between each other, while the result of NPSM and customer convenience shows positive connection between the two variables.

The regression coefficient revealed that at constant, there exists a positive but insignificant impact on the dependent variable. Furthermore, crowdsourcing coefficient exhibits a positive and significant impact on the new product social media, business productivity (BP) exhibits negative and insignificant impact on new product social media, firm performance has a positive impact but not significant to influence new product social media, while customer convenience has positive and significant impact on new product social media during the study period.

5. SUMMARY, DEDUCTION AND POLICY RECOMMENDATIONS

5.1 Summary

This investigation aimed to examine the impact of crowdsourcing on social media in new product development in Nigeria. Specifically, the study examined the effect of crowdsourcing on new product development in Nigeria; to investigate the effect of social media on new product development in Nigeria; to determine the correlation between crowdsourcing and social media in Nigeria; and examine the relationship between crowdsourcing and social media on new product in Nigeria.

The study employed primary data where correlation and regression analysis were used. However, from the analysis, the questionnaire frequencies were presented according to the respondents' reported show that majority supported that social-media platform is favorable for new product development, crowdsourcing is only effective on social media in creating new product, the majority agreed customers get to know new product via social media. It also indicated that majority supported that crowdsourcing has impacted positive to many organizations, majority agreed that effective use of social media increases business productivity and decreases cost of production, majority accepted that daily or weekly programme on social media attracts more customers to participate in crowdsourcing, both the online advertising and other forms of advertising are being used as form of crowdsourcing, and most businesses are using social media in promoting their new product.

The majority agreed that network fluctuations hinder the use of crowdsourcing and this tune discourage participants, half of the majority supported that customer receives promo by using or buying product(s) through social media, the quality of product customers received through social media are not that exceptional, that majority agreed the use of social media for crowdsourcing increases firm's performance, the majority disagreed that traditional marketing includes print, radio, television and outdoor ways for publicizing are the tools of crowdsourcing rather than social media, crowdsourcing via social media increases customer convenience

and promote new goods advancement and majority agreed that new product growth depend mostly on crowdsourcing using social media platform.

The correlation analysis revealed that new product social media and crowdsourcing has positive and significant connection between the proxies, NPSM and BP shows a positive correlation between new product social media and business productivity, the correlation value of NPSM and firm performance depicts a positive relationship between each other, while the result of new product social media and customer convenience shows positive connection between the two variables. Regression coefficient revealed that at constant, there exist a positive but insignificant impact on the dependent variable. Furthermore, crowdsourcing coefficient exhibits a positive and significant impact on the new product social media, business productivity (BP) exhibits negative and insignificant impact on new product social media, firm performance has a positive impact but not significant to influence new product social media, while customer convenience has positive and significant impact on new product social media during the study period.

5.2 Deduction

Based on the survey that was carried out in this study with several empirical literature which were reviewed ranging from the conceptual clarifications to the theoretical framework in relation to hypotheses formulated. However, it was concluded that people mostly used Instagram, Facebook, Twitter and YouTube respectively for crowdsourcing on social media and they mostly visit social media hourly and daily. Social media platform is favorable for new product development and crowdsourcing is only effective on social media in creating new product while customers get to know new product via social media.

It also concluded that crowdsourcing has impacted positive to many organizations, and effective use of social media increases business productivity and decreases cost of production, while daily or weekly programme on social media attracts more customers to participate in crowdsourcing using both the online advertising and other forms of advertising as a form of crowdsourcing.

More so, it was equally concluded that new product social media and crowdsourcing has positive and significant relationship, new product social media and business productivity showed a positive correlation relationship, new product social media

and firm performance depicted a positive relationship while new product social media and customer convenience showed positive correlation.

5.3 Policy Suggestions

In line with the above, the following are suggested

- It is recommended that companies are urged to implement crowdsourcing for new product development via social media, which instantaneously spread the product across its target audience.
- Crowdsourcing is rooted in social media and allows firms to draw skill and resources from separate online users. Therefore, firms are encouraged to strengthen their social media usage.
- It is also recommended that organizations should use crowdsourcing and social media to improve customer convenience to enabling business productivity and firms' performance.
- Social crowd combination has not achieved its maximum capacity yet. All things considered, the utilization of crowd supporting has expanded essentially as of late. Specifically, a few gatherings of computerized locals are keen on supporting to create items and design them exclusively. However, an applicable factor for the future utilization of the group lies in eagerness to take suitable activities.

5.4 Suggestion for Others

This study had carried out the effect of crowdsourcing on social media in new product development employing different conceptual frameworks from the previous scholars and the findings of the study had showed a robust outcome based on the analyses. This study then suggested further researchers in this area to examine the connection between crowdsourcing and social-media on organizational efficiency of some selected firm using country specifics.

5.5 Limitation of the Study

This study had investigated the effect of crowdsourcing on social media in new product development in Nigeria. However, there were limitations encountered during the investigation, the study firstly focused at Lagos Nigeria, besides, Nigeria has

about 36 states, but the study mainly focused the scope to Lagos alone. The other constraint was the questionnaire distributed to the respondents were limited to two local government in Lagos where 200 participants were conveniently selected for the study.

REFERENCES

Adegbuyi, O., Akinleye, F. A. & Samuel, A. T. (2015). Effect of social media marketing on small scale business performance. *International Journal of Management and Social Sciences, 2*(3), 275-283

Ajzen, I., & Fishbein, M. (2000). Attitudes and the attitude-behavior relation: Reasoned and automatic processes. *European Review of Social Psychology*, 11(1), 1-33

Allen, B. J. Chandrasekaran, D. & Basuroy, S. (2018). *Design Crowdsourcing: The Impact on New Product Performance of Sourcing Design Solutions from the Crowd.*

Andersen, G. (2008). Marketers don't just Blindly Follow the Latest Media Trends, *Advertising Age*, 79(22), 20.

Aral, S. & Walker, D. (2011). Creating Social Contagion through Viral Product Design. *A Randomized Trial of Peer Influence in Networks, Management Science 57*(9), 1623 –1639.

Brabham, D. C. (2008). Crowdsourcing as a model for problem solving: An introduction and cases. Convergence: *The International Journal of Research into New Media Technologies, 14*, 75–90

Brown, J., Broderick, A. J. & Lee, N. (2007). Word of Mouth Communication within Online Communities: Conceptualizing the Online Social Network", *Journal of Interactive Marketing, 21*(3), 2–20.

Cassar, G. (2006). Entrepreneur opportunity costs and intended venture growth. *Journal of Business Venturing*, 21(5), 610-632.

Chaffey, D., Ellis-Chadwick, F., Johnston, K. & Mayer, R. (2009). *Internet Marketing: Strategy, Implementation and Practice*, fourth edition, Harlow: FT Prentice Hall.

Cohn, M. (2010). *The Impact of Social Media on Advertising*. Retrieved from compukol.com/the-impact-of-social-media-on-advertising/

Dahl, D. W., & Moreau, C. P. (2007). Thinking inside the box: Why consumers enjoy constrained creative experiences. *Journal of Marketing Research, 44*, 327–369.

Dahlander, L., & Magnusson, M. (2005). Relationships between open source software companies and communities: Observations from Nordic firms. *Research Policy, 34*, 481– 493.

Dawson, R., & Bynghall, S. (2012). *Getting results from crowds*. San Francisco, CA: Advanced Human Technologies.

Engle, R. L., Dimitriadi, N., Gavidia, J. V., Schlaegel, C., Delanoe, S., Alvarado, I., & Wolff, B. (2010). Entrepreneurial intent: a twelve-country evaluation of Ajzen's model of planned behavior. *International Journal of Entrepreneurial Behaviour & Research*, 16(1), 35-57.

Füller, J. (2010). Refining virtual co-creation from a consumer perspective. *California Management Review*, 52, 98–122. http://dx.doi.org/10.1525/cmr.2010.52.2.98

Gardner, D. G., & Pierce, J. L. (1998). Self-Esteem and Self-Efficacy within the Organizational Context an Empirical Examination. *Group & Organization Management*, 23(1), 48-70

Gay, R., Charlesworth, A. & Esen, R. (2007). *Online Marketing*; A Customer-Led Approach, New York: Oxford University Press

Gilchrist, T. (2008). *Crowdsourcing and Its Impact on New Product Development*. Retrieved from https://www.socialmediatoday.com/content/crowdsourcing-and-its-impact-new-product-development.

Gillin P. (2009). Secrets of Social Media Marketing: how to Use Online Conversations and Customer Communities to Turbo-charge Your Business. *Quill Driver Books*: Fresno, CA.

Greenberg, P. (2009). *CRM at the Speed of Light*: Social CRM Strategies, Tools and Technologies for Engaging Your Customers, fourth edition, Boston, MA: McGraw-Hill

Howe, J. (2006). The rise of crowdsourcing. *Wired Magazine*, *14*(6), 1–4. Retrieved, from http://archive.wired.com/wired/archive/14.06/crowds. html?pg=1&topic=crowds&topic_set=.

Kavaliova, N., Virjee, F., Maehle, N. & Kleppe, I. A. (2016). Crowdsourcing innovation and product development: Gamification as a motivational driver. *Cogent Business & Management, 3*: 1128132. http://dx.doi.org/ 10.1080/23311975.2015.1128132

Kietzmann, J. H., Hermkens, K., McCarthy, I. P. & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons, 54(3)*, 241-251.

Kirby, M. (2010). *Social Status*, Airline Business, 26(3), pp. 40–2.

Krause, J., Croft, P. D., & James, R. (2007). Social Network Theory in the Behavioural Sciences: Potential Applications, *Journal of Behavioral and Ecological Sociobiology 62*:15–27.

Kumar, R. (2013). *Crowdsourcing: A New Paradigm of Knowledge Management*. https://leaderonomics.com/personal/crowdsourcing-a-new-paradigm-of-knowledge-management.

Kunur, P. (2010). You're Using Social Media, But Who Is Overseeing It All? *Advertising Age*, 81(8), 8.

Lakhani, K. R., Jeppesen, L. B., Lohse, P. A, & Panetta, J. A. (2007). The value of openness in scientific problem solving (*Harvard Business School Working Paper* No. 07–050). Retrieved May 18, 2019, from http://www.hbs.edu/faculty/ Publication%20Files/07-050.pdf

Lakshmi, V., Mahboob, A. & Choudhary, A. (2017). A study on impact of social media on small and Medium enterprises. *International Journal of Scientific Development and Research (IJSDR), 2*(11), 64-71.

Lam, H. N. (2016). Using social media to develop and commercialize new ICT products. *Master's thesis*. Department of Management Studies, Aalto University, School of Business.

Lionel, Z. K. (2017). The Impact of Social media on Innovation in Small and Medium-Sized Businesses. The Impact of Social media on Innovation in Small and Medium-Sized Businesses. *PhD thesis*, University of Leeds.

Malone, T.W., Laubacher, R., & Dellarocas, C. (2010). The collective intelligence genome. *MITSloan Management Review 51*(3). 20–31. Retrieved March 2, 2019, from http://gaius.cbpp.uaa.alaska.edu/afef/CollectiveIntel.pdf.

Mangold, W. G & Faulds, D. J. (2009). Social Media: The New Hybrid Element of the Promotion Mix, *Business Horizons*, 52(4): 357 – 365.

Oleson, D., Sorokin, A., Laughlin, G., Hester, V., Le, J., & Biewald, L. (2011). Programmatic gold: targeted and scalable quality assurance in crowdsourcing. *Human computation*: *papers from the 2011 AAAI Workshop* (*WS-11-11*), 43–48.

Riemer, K. & Richter, A. (2010). Social software: agents for change or platforms for social reproduction? A case study on enterprise micro blogging. *In 21st Australasian Conference on Information Systems,* 1–3 December 2010, Brisbane.

Saxton, G. D., Oh, O. & Kishore, R. (2010). Rules of Crowdsourcing: Models, Issues, and Systems of Control. *Fourth Global Sourcing Workshop.* 1-40.

Scott, J. (2000). *Social Network Analysis*, Sage, London.

Shabbir, M. S. (2015a). Innovation and competitiveness lead to industrial trade. *Business and Economics Journal 6*(4): 181.

Shabbir, M. S., Ghazi, M. S., & Mehmood, A. R. (2016). Impact of Social Media Applications on Small Business Entrepreneurs. *Management and Economics Research Journal, 2,* 1–5.

Shafie, L. A., Mansor, M., Osman, N. Nayan, S., & Maesin, A. (2011). Privacy, Trust and Social Network Sites of University Students in Malaysia. *Research Journal of International Studies, 20*(3): 34 – 56.

Shah, S. (2006). Motivation, governance, and the viability of hybrid forms in open source software development. *Management Science, 52,* 1000–1014. http://dx.doi.org/10.1287/mnsc.1060.0553

Srinivasan, R., Bajaj, R. & Bhanot, S. (2016). Impact of Social Media Marketing Strategies used by Micro Small and Medium Enterprises (MSMEs) on Customer acquisition and retention. *Journal of Business and Management (IOSR-JBM), 18*(1), 91-101.

Tirunillai, S. & Tellis, G. (2012). Does Chatter Matter? The Impact of Online Consumer Generated Content on a Firm's Financial Performance, *Marketing Science, 31*(2): 198 –215.

Tuten, L. T. (2008). *Advertising 2.0: Social Media Marketing in a Web 2.0 World*. Praeger Publisher: Westport, CT.

Van-der-Bank, C. M. & Van-der-Bank, M. (2015). The impact of social media: advantages or disadvantages. *African Journal of Hospitality, Tourism and Leisure* Vol. 4 (2), 1-9.

Whitla, P. (2009). Crowdsourcing and Its Application in Marketing Activities. *Contemporary Management Research*, *5*(1), 15-28.

Wong-On-Wing, B., Guo, L., & Lui, G. (2010). Intrinsic and extrinsic motivation and participation in budgeting: Antecedents and consequences. *Behavioral Research in Accounting, 22*, 133–153. http://dx.doi.org/10.2308/bria.2010.22.2.133

APPENDICES

APPENDIX 1: Research Questions
APPENDIX 2: Frequencies

T.C.
İSTANBUL AYDIN ÜNİVERSİTESİ REKTÖRLÜĞÜ
Sosyal Bilimler Enstitüsü Müdürlüğü

Sayı : 88083623-020
Konu : JAMES TIMILEHIN AKINLOSE Hk.

Sayın JAMES TIMILEHIN AKINLOSE

Tez çalışmanızda kullanmak üzere yapmayı talep ettiğiniz anketiniz İstanbul Aydın Üniversitesi Etik Komisyonu'nun 07.05.2019 tarihli ve 2019/07 sayılı kararıyla uygun bulunmuştur.

Bilgilerinize rica ederim.

e-imzalıdır
Prof. Dr. Ragıp Kutay KARACA
Müdür

18/09/2019 Enstitü Sekreteri NESLİHAN KUBAL

Adres:Beşyol Mah. İnönü Cad. No:38 Sefaköy , 34295 Küçükçekmece / İSTANBUL
Telefon:444 1 428
Elektronik Ağ:http://www.aydin.edu.tr/

Bilgi için: NESLİHAN KUBAL
Unvanı: Enstitü Sekreteri

APPENDIX 1: Research Questions

T.C.
ISTANBUL AYDIN UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES

Dear Sir/Ma,

I am James Timilehin AKINLOSE, a masters student of the Department of Business Administration, Institute of Social Sciences, Istanbul Aydin University, Istanbul, Turkey. I am conducting research for my thesis titled: "**THE EFFECT OF CROWDSOURCING ON SOCIAL MEDIA IN NEW PRODUCT DEVELOPMENT**".

Your contribution is strongly valuable to facilitate the analysis of data to be collated through the administration of this questionnaire. Your answer/information will be treated with utmost confidentiality. Please answer the questions to the best of your knowledge and please give appropriate information because the data which will be collated will be used for study purposes alone and nothing else.

Signed
James Timilehin AKINLOSE

Research Questions
Instruction: Please choose / tick where appropriate
Section A involves personal information and section B states the direction towards which the research questions should be answered.

SECTION A: Personal Information

Please tick the appropriate response for each item

1. Gender (a) Male ( ) (b) Female ( )
2. Age of respondent
    (a) 20- 29 years ( )
    (b) 30-39 years ( )
    (c) 40- 49 years ( )
    (d) 50 years and above ( )
3. Educational qualification
    (a) Primary School leaving certificate ( )
    (b) WASC or GCE or NABTEB or NECO O Level ( )
    (c) NCE or OND or HSC or GCE A level ( )
    (d) HND or BSC or B.ED ( )
    (e) MBA or MSC or M.ED ( )
    (f) None of the above ( )
4. What's your occupation?
    (a) Entrepreneur
    (b) Unemployed
    (c) Paid worker
    (d) Retired
5. How many social media platforms do you use?
    (a) One
    (b) Two
    (c) Three
    (d) Four
    (e) More
6. What is your most frequently used social media platform?
    (a) Facebook
    (b) Twitter
    (c) Instagram
    (d) Youtube
    (e) Others

7. How often do you visit social media?

    (a) Hourly
    (b)Daily
    (c) Weekly
    (d) Monthly
    (e) Yearly

8. Which form of crowdsourcing on social media channel of promotion is more effective?

    (a) Micro-blogging
    (b) Social network
    (c) Media sharing
    (d) Others

SECTION B

Kindly tick as appropriate: There is no wrong or right answer. Your sincere opinion will be appreciated.

SA= Strongly Agree; A= Agree; N= Neutral; D= Disagree; SD= Strongly Disagree

S/N	Question	SA	A	N	D	SD
1	Social media platform is favourable for new product development					
2	Crowdsourcing is only effective on social media in creating new product					
3	Customers get to know new product via social media					
4	Crowdsourcing has impacted positive to many organisation					
5	Effective use of social media increases business productivity and decreases cost of production					
6	Daily or weekly programme on social media attracts more customers to participate in crowdsourcing					
7	Despite the growth rate of online advertising, other forms of advertising is the still the most used form of crowdsourcing					
8	Most businesses are using social media in promoting their new product					
9	Network fluctuations hinder the use of crowdsourcing and this tune discourage participants					
10	Customer receives promo by using or buying product(s) through social media					

11	The quality of product customers received through social media are exceptional					
12	The use of social media for crowdsourcing increases firm's performance					
13	Traditional advertising such as print, radio, television and outdoor ways for publicizing are the tools of crowdsourcing rather than social media					
14	Crowdsourcing via social media increases customer convenience and promote new product development					
15	New product development depends mostly on crowdsourcing using social media platform					

APPENDIX 2: Frequencies

Frequencies

Output Created	**Notes**	**17-JUN-2019 15:51:17**
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	201
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=Gender Age Edu Occpt SMP FSMP OFSM EFF Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13 Q14 Q15 /STATISTICS=SUM /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00.03
	Elapsed Time	00:00:00.04

Frequency Table

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	113	56.2	56.2	56.2
	Female	88	43.8	43.8	100.0
	Total	201	100.0	100.0	

Age of Respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20- 29 years	77	38.3	38.3	38.3
	30-39years	110	54.7	54.7	93.0
	40-49years	10	5.0	5.0	98.0
	50 years and above	4	2.0	2.0	100.0
	Total	201	100.0	100.0	

Educational Qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	WASC or GCE or NABTEB or NECO O Level	9	4.5	4.5	4.5
	NCE or OND or HSC or GCE A level	14	7.0	7.0	11.4
	HND or BSC or B.ED	119	59.2	59.2	70.6
	MBA or MSC or M.ED	58	28.9	28.9	99.5
	None of the above	1	.5	.5	100.0
	Total	201	100.0	100.0	

What is your occupation?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Entrepreneur	106	52.7	52.7	52.7
	Unemployed	25	12.4	12.4	65.2
	Paid worker	70	34.8	34.8	100.0
	Total	201	100.0	100.0	

How many social media platforms do you use?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	One	6	3.0	3.0	3.0
	Two	29	14.4	14.4	17.4
	Three	82	40.8	40.8	58.2
	Four	84	41.8	41.8	100.0
	Total	201	100.0	100.0	

What is your most frequently used social media platform?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Facebook	67	33.3	33.3	33.3
	Twitter	20	10.0	10.0	43.3
	Instagram	84	41.8	41.8	85.1
	YouTube	3	1.5	1.5	86.6
	Others	27	13.4	13.4	100.0
	Total	201	100.0	100.0	

How often do you visit social media?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Hourly	100	49.8	49.8	49.8
	Daily	93	46.3	46.3	96.0
	Weekly	7	3.5	3.5	99.5
	Monthly	1	.5	.5	100.0
	Total	201	100.0	100.0	

Which form of crowdsourcing on social media channel of promotion is more effective

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Micro-blogging	7	3.5	3.5	3.5
	Social Network	142	70.6	70.6	74.1
	Media sharing	46	22.9	22.9	97.0
	Others	6	3.0	3.0	100.0
	Total	201	100.0	100.0	

Social media platform is favourable for new product development

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	97	48.3	48.3	48.3
	Agree	38	18.9	18.9	67.2
	Neutral	23	11.4	11.4	78.6
	Disagree	20	10.0	10.0	88.6
	Strongly Disagree	23	11.4	11.4	100.0
	Total	201	100.0	100.0	

Crowdsourcing is only effective on social media in creating new product

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	38	18.9	18.9	18.9
	Agree	52	25.9	25.9	44.8
	Neutral	63	31.3	31.3	76.1
	Disagree	24	11.9	11.9	88.1
	Strongly Disagree	24	11.9	11.9	100.0
	Total	201	100.0	100.0	

Customers get to know new product via social media

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	79	39.3	39.3	39.3
	Agree	54	26.9	26.9	66.2
	Neutral	25	12.4	12.4	78.6
	Disagree	22	10.9	10.9	89.6
	Strongly Disagree	21	10.4	10.4	100.0
	Total	201	100.0	100.0	

Crowdsourcing has impacted positive to many organisation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	74	36.8	36.8	36.8
	Agree	51	25.4	25.4	62.2
	Neutral	39	19.4	19.4	81.6
	Disagree	23	11.4	11.4	93.0
	Strongly Disagree	14	7.0	7.0	100.0
	Total	201	100.0	100.0	

Effective use of social media increases business productivity and decreases cost of production

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	55	27.4	27.4	27.4
	Agree	49	24.4	24.4	51.7
	Neutral	44	21.9	21.9	73.6
	Disagree	28	13.9	13.9	87.6
	Strongly Disagree	25	12.4	12.4	100.0
	Total	201	100.0	100.0	

Daily or weekly programme on social media attracts more customers to participate in crowdsourcing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	73	36.3	36.3	36.3
	Agree	56	27.9	27.9	64.2
	Neutral	37	18.4	18.4	82.6
	Disagree	18	9.0	9.0	91.5
	Strongly Disagree	17	8.5	8.5	100.0
	Total	201	100.0	100.0	

Despite the growth rate of online advertising, other forms of advertising is the still the most used form of crowdsourcing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	31	15.4	15.4	15.4
	Agree	53	26.4	26.4	41.8
	Neutral	64	31.8	31.8	73.6
	Disagree	36	17.9	17.9	91.5
	Strongly Disagree	17	8.5	8.5	100.0
	Total	201	100.0	100.0	

Most businesses are using social media in promoting their new product

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	88	43.8	43.8	43.8
	Agree	54	26.9	26.9	70.6
	Neutral	19	9.5	9.5	80.1
	Disagree	20	10.0	10.0	90.0
	Strongly Disagree	20	10.0	10.0	100.0
	Total	201	100.0	100.0	

Network fluctuations hinder the use of crowdsourcing and this tune discourage participants

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	36	17.9	17.9	17.9
	Agree	49	24.4	24.4	42.3
	Neutral	69	34.3	34.3	76.6
	Disagree	29	14.4	14.4	91.0
	Strongly Disagree	18	9.0	9.0	100.0
	Total	201	100.0	100.0	

Customer receives promo by using or buying product(s) through social media

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	45	22.4	22.4	22.4
	Agree	54	26.9	26.9	49.3
	Neutral	51	25.4	25.4	74.6
	Disagree	31	15.4	15.4	90.0
	Strongly Disagree	20	10.0	10.0	100.0
	Total	201	100.0	100.0	

The quality of product customers received through soicial media are exceptional

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	28	13.9	13.9	13.9
	Agree	42	20.9	20.9	34.8
	Neutral	68	33.8	33.8	68.7
	Disagree	41	20.4	20.4	89.1
	Strongly Disagree	22	10.9	10.9	100.0
	Total	201	100.0	100.0	

The use of social media for crowdsourcing increases firm's performance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	48	23.9	23.9	23.9
	Agree	63	31.3	31.3	55.2
	Neutral	56	27.9	27.9	83.1
	Disagree	21	10.4	10.4	93.5
	Strongly Disagree	13	6.5	6.5	100.0
	Total	201	100.0	100.0	

Traditional advertising such as print, radio, television and outdoor ways for publicizing are the tools of crowdsourcing rather than social media

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	21	10.4	10.4	10.4
	Agree	26	12.9	12.9	23.4
	Neutral	68	33.8	33.8	57.2
	Disagree	53	26.4	26.4	83.6
	Strongly Disagree	33	16.4	16.4	100.0
	Total	201	100.0	100.0	

Crowdsourcing via social media increases customer convenience and promote new product development

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	63	31.3	31.3	31.3
	Agree	60	29.9	29.9	61.2
	Neutral	46	22.9	22.9	84.1
	Disagree	17	8.5	8.5	92.5
	Strongly Disagree	15	7.5	7.5	100.0
	Total	201	100.0	100.0	

New product development depend mostly on crowdsourcing using social media platform

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	39	19.4	19.4	19.4
	Agree	57	28.4	28.4	47.8
	Neutral	65	32.3	32.3	80.1
	Disagree	27	13.4	13.4	93.5
	Strongly Disagree	13	6.5	6.5	100.0
	Total	201	100.0	100.0	

Descriptives

Notes

Output Created		17-JUN-2019 18:38:30
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	201
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=NPSM CS BP FP CC /STATISTICS=MEAN SUM STDDEV VARIANCE MIN MAX KURTOSIS SKEWNESS.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.02

[DataSet0]

escriptive Statistics

	N	Minimum	Maximum	Sum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
NPSM	201	1	5	437	2.17	1.416	2.005	.884	.172	-.630	.341
CS	201	1	5	455	2.26	1.259	1.585	.690	.172	-.596	.341
BP	201	1	5	522	2.60	1.350	1.822	.396	.172	-1.016	.341
FP	201	1	5	491	2.44	1.152	1.328	.517	.172	-.430	.341
CC	201	1	5	464	2.31	1.210	1.464	.704	.172	-.349	.341
Valid N (listwise)	201										

Correlations

Correlations

		NPSM	CS	BP	FP	CC
NPSM	Pearson Correlation	1	.625**	.382**	.415**	.511**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	201	201	201	201	201
CS	Pearson Correlation	.625**	1	.581**	.505**	.576**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	201	201	201	201	201
BP	Pearson Correlation	.382**	.581**	1	.459**	.386**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	201	201	201	201	201
FP	Pearson Correlation	.415**	.505**	.459**	1	.511**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	201	201	201	201	201
CC	Pearson Correlation	.511**	.576**	.386**	.511**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	201	201	201	201	201

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

Regression

Notes

Output Created		17-JUN-2019 18:38:44
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	201
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT NPSM /METHOD=ENTER CS BP FP CC.
Resources	Processor Time	00:00:00.03
	Elapsed Time	00:00:00.03
	Memory Required	2652 bytes
	Additional Memory Required for Residual Plots	0 bytes

[DataSet0]

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	CC, BP, FP, CS[b]	.	Enter

a. Dependent Variable: NPSM

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.655[a]	.428	.417	1.081

a. Predictors: (Constant), CC, BP, FP, CS

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	171.740	4	42.935	36.721	.000[b]
	Residual	229.166	196	1.169		
	Total	400.905	200			

a. Dependent Variable: NPSM

b. Predictors: (Constant), CC, BP, FP, CS

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.212	.206		1.029	.305
	CS	.532	.086	.473	6.209	.000
	BP	-.005	.072	-.005	-.074	.941
	FP	.093	.083	.075	1.115	.266
	CC	.236	.081	.202	2.902	.004

a. Dependent Variable: NPSM

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	201	100.0
	Excluded[a]	0	.0
	Total	201	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.906	15