The Impact of COVID-19 Pandemic on the Competence of Business Managers as Mediation on the Performance of Fast-moving Consumer Goods in Ghana

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**ABSTRACT**

The COVID-19 pandemic has become a worldwide concern hampered people’s mobility and global trade. The study seeks to find the linkage between business managers’ competency toward the performance of Fast-Moving Consumer Goods (FMCG) during the COVID-19 pandemic. The study is a quantitative technique that has a sample of 750 respondents, of which 732 responses were returned as per the questionnaires sent for data collection. The partial least squares technique was deemed appropriate and was used to scrutinize the data, which was based on Structural Equation Modeling (SEM). The findings revealed that COVID-19 pandemic has harmed managers’ ability to operate their firms in Ghana, resulting in layoffs, low market share, low firm productivity, low client retention, a rise in the unemployment rate, and the closing of businesses. These findings supported profit maximization and survival-based theories, specifically the explanations advanced under the premise that every organization will act in its own best interests to maximize profit and survival, using every tactic to achieve survival. The implications of this study are to ensure that FMCG in Ghana ultimately migrates into digital platforms in order to remain flexible in their operation as a business and allow effective transactions among customers and business.

Managerial competence is a significant concept and a crucial pillar in the workplace. As a result, the manager has a significant amount of difficulty in guiding personnel at work. A lot of research has been conducted on management competency and employee performance in various firms (Michie, 2020), but for this study, the Profit Maximization Theory (PMT) proposed by Adam Smith (Lynch et al., 2000) and the Survival Base Theory (SBT) proposed by Dwyer et
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al. (2003) was the framework linked to matters connected to COVID-19 and managerial competency toward Fast-Moving Consumer Products (FMCG). The issue of managerial competency has always been at the heart of Ghana's national agenda, as evidenced by the frequency of strike actions within the government sector and private sectors being rampant. According to Opoku-Ware (2015), businesses nowadays are concerned with what should be done to attain a continuously high level of performance through individuals who are innovative thinkers. These include paying greater attention to how employees and managers might be most motivated and effective, as well as creating an environment that allows individuals to fulfill their mandates in line with management's expectations (Jones & Bubb, 2020).

The worldwide pandemic coronavirus (COVID-19) began in Wuhan, China, and extended its travel to over 216 nations. Thus, from mid-May 2020, there were 4,125,533 worldwide cases and 280,965 fatalities (Kampf et al., 2020). However, investments in vaccine development to battle the effects of COVID-19 have effectively reduced worldwide instances to 211, 519, 839 cases and 3,570,872 fatalities by March 2022 (Wang & Tu, 2020). The pandemic ushered in a dramatic way of doing things professionally and personally (Nicola et al., 2020). Before the Covid-19, there was a major shift in trade between the United States of America and China and the impending Brexit, which were issues of concern within the international business world. The seriousness of the misunderstanding in trade and Brexit were issues going to affect the global economy and was a major concern in the international business sector (Michie, 2020). The International Monetary Fund (IMF) has pealed into the discussion, expecting a rapid recovery and a global growth rate of about 3.4 percent (Bentolila et al., 2019). The pandemic caused a massive disturbance unlike any other in the world of business (Ozili & Arun, 2020). Ambiguity within the corporate climate compelled the business to make key decisions for survival, such as layoffs and wage cutbacks of up to 80% and mandatory leave without pay. Within a week of the pandemic breakout proclamation, global capital markets had fallen, with a stock market losing about USD 8 trillion, while the United States, Europe, Asia, and African all reported massive unemployment rates (14.7 -18.5 % percent across) since the great depression (Bernanke, 2020).

Ghana was not immune to the disaster, with the price of gold (the country's principal export and foreign currency earner) dropping during that time. As a result, the price of gold was around $54.77 in January 2021, and it was extremely volatile. The pricing differential forced the government to borrow to offset the effect (Ozili & Arun, 2020), while the Ghanaian economy' had a brief shutdown which had a significant influence on business leading to a closed down in operations of business due to this pandemic. The pandemic again led to the loss of jobs and a decrease in productivity, particularly among key enterprises manufacturing consumable products. As a result of the pandemic, technology-oriented businesses flourished due to the outbreak, and several workers were compelled to work from the house. More importantly, because the pandemic exposed the flaws in most countries' labor force, particularly in Ghana, causing a lot of jobs to become obsolete and resulting in unemployment, it gave credence to digital companies and perhaps some digital wireless communication (Microsoft teams, Dropbox, Webe, Google workspace, Slack, Zoom meetings, etc.) to become the new norm of having and carrying out meetings, assigning duties, and reviewing employees’ efficiency since physical contact was discouraged. While the pandemic interrupts regular manual labor routines and timetables, it also implicitly prepares people's minds, notably organizations and
government agencies (Allam & Jones, 2020; Türker, 2012). FMCG is one of Ghana’s most effective retail industries, contributing considerably to the country’s gross domestic product (GDP). Many governments throughout the globe, including Ghana, gave enterprises in the FMCG industry special licenses to operate at reduced capacity in order to supply residents' fundamental requirements during the lockdown (Barua, 2020, KPMG, 2020). By 2020, Ghana's FMCG industry's food and beverage sector is projected to amount to up to 45 percent of the country's overall GDP, being the engine of consumer products (KPMG, 2020).

Furthermore, according to the Ghana stock exchange (KPMG, 2020), the FMCG business industry contributes 28% of the value of equity in Ghana’s market capitalization. This indicates how important the industry is to Ghana’s economy. A recent study during the covid era focused on how COVID-19 is affecting firms in Ghana conducted by the Ghana Statistical Service, with aid from the UNDP and the World Bank while others also focused on the impact of COVID-19 on Africa's gold, transportation, oil, and educational sectors, but there is currently lack of studies on the FMCG industry being the motive behind this research. Thus, the gap this study seeks to uncover is how the pandemic has affected the FMCG industry being the engine of Ghana’s economy in terms of consumer goods.

**Literature Review**

**COVID-19**

The Corona Virus (COVID-19) causes infections including the common cold, SARS-CoV, MERS-CoV, and others. The COVID-19 virus continues to spread at an alarming rate, despite efforts to stop it (Alnsour, 2018). The pandemic is a worldwide medical issue disturbing all industries, with a vaccine not expected until late 2021. Many breakthroughs in the development of COVID-19 vaccines were announced in the first quarter of 2021 in nations such as the United States, Russia, and the United Kingdom, among others (Wang & Tu, 2020). More individualization, fewer religious gatherings, and governments adopting new kinds of economic, social, and political integration were some of the possibilities for preventing the spread.

**FMCG Sector and COVID-19 Pandemic in Ghana**

The COVID-19 pandemic presented the FCMG sector in Ghana with unprecedented hurdles. Consumer demand for products and services fell dramatically as a result of the pandemic, and several factories forced the FCMG industry to shut down completely due to the directives from the government in order to prevent the virus from spreading among consumers (Dadzie et al., 2017, Ghana Statistical Service, 2020). While firms in the FMCG sector in Ghana embrace safety measures and strictly adhere to covid-19 protocols, most firms also had to fully shut down their production operations (KPMG, 2020). Few businesses in the industry attempted to rise to the occasion by pursuing inventive ways to cope with the crisis, but it was an unforeseeable condition, and most of these enterprises in Ghana's FMCG sector ended up paying more costs than normal, causing further production interruptions.

The FMCG sector's supply chain was severely disrupted by the directives of the ministry of defense's restrictions on Ghana's border trade as a result of the pandemic outbreak, depriving them of raw materials needed for production (Ghana Statistical Service, 2020). Due to the pandemic outbreak, the government ordered a total lockdown of key districts in Ghana, namely Accra, Kumasi, and Tema, which are significant centers for FMCG exporting and importing.
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This comprehensive shutdown operated as an even greater hindrance to demand and supply, reducing the sector's production to zero. Before the COVID-19 pandemic, the FMCG sector was expected to contribute 25% of Ghana's GDP. The question to wonder about is whether Ghana's FMCG industry will be able to contribute its proportion of GDP after COVID-19, and whether it will be able to recover from its current production and operations. The pandemic disrupted economic and business activity in Ghana, as it did in most other parts of the world, which the government had never faced before and had no strategies in place to minimize its effects. Ghana's economies rely on imports, mainly from China, Europe, and America has increased the country's vulnerability, with raw material imports from China alone accounting for over 60% of the country's GDP. Furthermore, approximately 40% of Ghana's imports came from Asia and Europe, demonstrating that cross-border trade restrictions in Asia and Europe have disrupted supply chains to Ghana, depriving the Ghanaian economy of crucial raw material input for manufacturing (Ghana Statistical Service, 2020).

The overall shutdown and business restrictions from various parts of the world limited Ghana's FMCG industry from gaining access to raw materials, goods, and finished products, as well as preventing Ghana's economy from exporting goods and services to other countries around the world, robbing the Ghanaian economy of foreign exchange that could have helped the economy grow even more. The pandemic caused the price of gold to collapse from over $62 to as low as $23; this had a disastrous impact on Ghana's economy, as the Ghanaian economy is strongly dependent on gold export, and Ghana derives the majority of its foreign currency from gold export (Bloomberg, 2020; Ozili & Arun, 2020). Though the action by the Ghanaian government was sensible given the critical need to control the pandemic, it did need certain harsh measures such as a reduction in spending and a decrease in expenditure while focusing on available resources toward managing the pandemic that brought about covid-19 (Ansah, 2020). Ghana's economy is projected to undergo one of its worst recessions since 1983 due to the pandemic. Ghana's economy has been thrown off, resulting in lower gold prices and remittances, as well as heightened risk aversion in global and local markets. Ghana's economy is anticipated to collapse by 4% as a result of the epidemic (World Bank, 2020). While the Ghanaian government continues to work on strategies to revive the economy, it is unknown how long the economy will recover or whether the government's present efforts will provide the desired outcomes.

**Underpinning Theory**

**Profit Maximization Theory and Survival-Base Theory**

The profit maximization theory was first advanced by Adam Smith in his book “The Wealth of Nations” (Lynch et al., 2000), which established the importance of the profit maximization concept, indicating that every organization would act in the best means possible in order to maximize profit from the economic exchanges they desire. In the nineteenth and twentieth centuries, Herbert Spencer promoted the survival-based paradigm (Lynch et al., 2000). The concept stresses survival of the fittest, with each business unit utilizing tactics to ensure survival. According to the profit maximization concept, any business owner or organization will act in the best interests in order to maximize profit, maintain long-term viability, and increase society's total benefit. As a result, during the COVID-19, firms must find new ways to make money and survive (Jenkins & Mathurin, 2012; Lynch et al., 2000). According to the
theory, businesses aim to maximize profit by comparing marginal income to marginal cost. Profit maximization is the ultimate purpose of the organization. According to the notion, as long as the law and ethical customs are observed in the company's economic operations, profit margins will be achieved.

The survival of the fittest is the focus of survival-based philosophy, which emphasizes that enterprises must ensure and use everything lawfully, and feasible to expand, compete and survive (Dwyer et al., 2003). According to the survival-based theory, rivals would naturally try to develop the fittest organization that can adapt quickly and efficiently. The concept implies that strong commercial competition is beneficial in achieving the ultimate aim of legal existence (Lantos, 2001). Because organizations frequently experience financial difficulties, layoffs, failed products, market share losses, and other impediments, the theory's relevance to a corporate turnaround is still relevant today. Personnel reductions/layoffs, pay cutbacks, the sale of a company's under-capacity asset, and product repositioning are all strategies that can help a business survive (Lantos, 2001). Efficiency, flexibility, and profitability are the fundamental aims of organizations, which ensure their long-term sustainability. All business decisions, especially during the COVID-19 epidemic, promote these objectives (profit maximization and survival), making them critical.

COVID-19 and Competence of the Business' Managers
Ghana's FMCG industry has experienced a number of issues throughout the years. Increasing competition drives businesses to hire qualified executives leading to competent employees and managers. The link between management abilities and corporate performance is still a hot topic in organizational research (Crook et al., 2011; Mitchelmore & Rowley, 2010). The current study tries to explain how management competencies impact or influence FMCG performance during the covid period; however, it can only be quantified as a subjective evaluation of economic growth metrics in contrast to market rivals that is what competence of managers in the FMCG industry can make decisions to survive during the COVID era. FMCG activity is a source of new jobs and an essential component in a free-market economy; it has a large impact on economic development and market influence (Lukes & Laguna, 2010). Human resource practices may be improved by an organization's performance and competitive advantage through the manager's effort. The competencies that managers bring on board, such as knowledge, skills, talents, or personality qualities, influence a person's performance, which turns to boost the efficiency of human resources of every organization. Furthermore, Lynch et al. (2000) see them as having the capacity to behave in a way that fits job needs while also achieving the required results in the organization's environmental conditions. According to Schroeder and Gibson (2010), general competencies are manager's responsibility for assigning duties and the power to influence employees or subordinates. Gibson (2010) identified managerial traits included diligence, consistency, self-confidence, charisma, purposefulness, creativity, tolerance, and stability. Others such as intelligence, initiative, self-confidence, and excitement are among his distinguishing characteristics. Furthermore, Kim and Tsai (2012) identified behavioral / people characteristics as typical components of management competencies: Working: professional credentials, anticipated performance, and workplace goals; species: basic and specific; performance: required for the performance of a certain profession; and distinctive: separates high-performing managers from less efficient ones.
Managerial competencies are also seen as a manager's actual abilities, knowledge, and experience, which should be used as effectively as feasible to achieve goals. They turn a good boss into a role model. They differentiate between essential and high-performance skills, which include cognitive, power, motivational, and target competencies. According to Harris (2017), firms that are able to identify talent and invest in the future generation will succeed. Leadership is about making an effect and bringing about change through the competence of the manager.

As a result, businesses should ensure that the right conditions exist for developing leadership potential, and leadership qualities are part of the competence of managers (Teriba, 2020). The more leadership styles a manager has under their belt, the more effective they will be. The leadership style may be flexibly adapted to the situation. According to Coleman (2001), it is appropriate to assemble a team whose individuals possess the styles that a manager needs. Boyatzis (2012) explored the traits of effective managers after doing research on management competence. Personality traits such as wisdom, dominance, extraversion, and social and emotional intelligence, according to his research, account for a considerable portion of the diversity in IQ. Furthermore, Marques et al. (2019) identifies engaged leadership, social perceptions, and behavioral adaptability in terms of efficacy. All management attributes must be considered in the context of the manager's overall personality. The manager's personality is an integrative component that binds all aforementioned characteristics together into a single entity. Simultaneously, it must address them and put them into practice in a specific managerial scenario. Among the personality traits listed by Kim and Tsai (2012) are numerous types of abilities, skills, and attributes that a good manager should possess. These are divided into four categories: managerial knowledge, interpersonal skills, conceptual skills and experience, and performance assumptions. By merging them, a unique personality profile of the manager may be created. This involves the construction of hypotheses one and two to determine if COVID-19 has altered the ability of business managers in the FMCG sector to be competent.

H1: COVID-19 pandemic influenced the competence of business' managers in the FMCG sector.

Competence of the Business' Managers and Technology

The era of globalization and knowledge base information technology has forced businesses and government agencies to use information technology (IT) due to the COVID-19 pandemic (Allam & Jones, 2020). The consistent use of technological adoption became a necessity leading to raising operating costs under the directives of managers during the COVID era. The use of technological tools for online discussions and meetings through Zoom, Microsoft Teams, Skype, and others has assisted businesses and organizations in surviving during the pandemic (Ting et al., 2020). Was covid a coincidence, or did it push technology (IT) adoption across the corporate value chain? The problem of IT has helped solve problems in certain ways, but it requires regulatory agencies to monitor and assess how institutions are efficiently using IT, especially in circumstances that tend to address problems. According to managers, Ghana's digital or technological usage has been with a lot of complications. According to Hutton (2017), digital data and information on the internet have inherent value for cybercriminals. Grabosky et al. (2001) argue that in the digital era, opportunities for criminality abound, and managers are expected to protect the information of their customers and employees. In the mid- and late-
2000s, cybercrime and financial fraud in Ghana and other West African nations drew regional, national, and worldwide attention. Ghana was listed among the top ten countries noted for cybercrime dealings in 2010, thanks to the operations of online financial transaction fraudsters (Boateng et al., 2011).

Admittedly, Kim and Tsai (2012) argued that mobile money fraud has occurred as a result of weaker internal regulations and a lack of a digital finance policy. In a 2018 notification to the public, the Bank of Ghana stated no restrictions regarding digital money. Money laundering, Ponzi schemes, and fraudulent investments are further encouraged by the digitization of financial services (Mugarura, 2017). Fraudsters are currently introducing pyramid banking, and fraudulent financial games marketed on the internet and are often early adopters of new digital money technologies, especially when the qualities might help them dodge the law (Fanusie & Robinson, 2018). As previously stated, financial institutions are responding to process and product digitalization at a glacial pace based on directives from managers. Cyberattacks, the promotion of anti-money laundering, the encouragement of illegal internet gaming, and financial scams are among the reasons given, particularly in nations with weak cyber regulations, of which Ghana is included (Esoimeme, 2020; Popper & Ruiz, 2017). As a result of these instances, financial institutions without a sound ICT infrastructure are cautious to fully engage in the supply of digital financial services, according to management. It would be quite expensive to build a better ICT network in order to deliver digital financial services. Due to a lack of investment by several financial institutions in the country, global firms usually provide servers and IT solutions. Because local financial institutions do not have total control over customer information, this poses a number of risks. In addition, several cases of online fraud have been revealed, eroding public confidence in digital financial services.

**H2:** COVID-19 pandemic, through the competence of the business' managers, has a positive impact on Technology Adoption.

**COVID-19 and Firm Productivity/Competence of Business Managers**

The FMCG industry in Ghana has had its share of problems throughout the years. One example is the decline in consumer purchasing power in Ghana due to the 1983 recession. The pandemic took a toll on the FMCG industry, worsened by the lack of access to the US dollar and dire financial conditions (Ghana Statistical Service, 2020, Opoku-Ware, 2015). The issue of disruption in all aspects of the organization is one of the challenges encountered by FMCG enterprises, prompting many to lay off employees or impose mandatory leave without pay (Adeti, 2020). The pandemic's impact affected productivity, and it is visible in the FMCG sector, which had a tremendous growth rate before the pandemic. Kim and Tsai (2012) argued that productivity during the pandemic centered on certain sectors but rather had a massive influence on consumer products (Opoku-Ware, 2015). Mugarura (2017) revealed that studies during the pandemic tend to focus on health issues and their impact on the business industry, but no research is yet to highlight its impact within the FMCG industry, which is a gap this research attempts to fill. Following this, hypothesis three looks at the influence of COVID-19 on business managers' competency and firm productivity in the FMCG industry.

**H3:** The competence of business managers has a significant impact on firms' productivity in the FMCG sector.
**Research Model**

The study harmonizes the components of the Profit Maximization Theory (PMT) and the Survival-Base Theory (SBT) into a conceptual framework for COVID-19 pandemic through business managers' competency in the productivity of Ghana's FMCG industry in this part. Academicians and practitioners may find the paradigm proposed in this study valuable in understanding the methods through which managers' competency might boost the FMCG industry in Ghana during the pandemic. Figure 1 shows the research model.

![Figure 1: Research Model](image)

**Method**

This research aims to investigate the relationship between COVID-19 pandemic and business managers' ability as a mediator of FMCG performance in Ghana. Data was gathered from the primary source. A questionnaire was used to collect primary data from the field of research. The research sample size was 10 FMCG enterprises out of a total population of 35 FMCG firms listed on the Ghana Stock Exchange (GSE). Thus, purposive sampling was adopted to select the 10 FMCG firms. The rationale for picking ten organizations from 35 recognized FMCG firms in Ghana was to ensure that the list of recognized FMCG firms is represented. Quantitative methodology was utilized to analyze categorization characteristics, quantify numbers, and develop a prediction pattern to test hypotheses and explain results (Creswell, 2008). Since the database was there at the Ghana Stock Exchange (GSE), it was easy to identify respondents and select them for the research. Moreover, a letter was sent to GSE as a form of consent to request access to the respondents in order to answer the questionnaires. This study used a simple random sample approach in which everyone was given an equal chance to respond to the questions. Thus, ten workers in each of the carefully chosen FMCG organizations were selected. The questionnaire items were generated in a google form and emailed to the respondents due to the COVID-19 pandemic, restricting travel and increasing social isolation.

**Instrumentation**

The data was acquired from the study population. A questionnaire was used to gather information from the population for the study. Questions on the factors under investigation were included in the questionnaire. The number of elements assessed in the study, as well as their sources, are listed in Table 1. Participants were asked to score the questions using the 5-point Likert scale, which ranged from strongly disagree (1) to strongly agree (5).

| Constructs                          | Number of Items | Literature Source                                                                 |
|------------------------------------|-----------------|-----------------------------------------------------------------------------------|
| COVID-19                           | 8               | Caldera & Wirasinghe (2014); Udofia et al. (2020)                                  |
| Technology                         | 5               | Ratchford & Barnhart (2012); Türker (2012)                                        |
| Competence of the Business' Managers | 7               | Cho (2006); Sirdeshmukh et al. (2002)                                             |
| Firm productivity                  | 6               | Baily & Gersbach (1995); Jorgenson (1990)                                         |

*Source: Created by the authors*
Data Analysis and Results

For easier access, data collection was done through the migration of the online survey questionnaire site using Microsoft Excel format. The validity of the model was confirmed by exploratory and confirmatory investigations. To determine the demographic information of all respondents, descriptive statistics were processed using SPSS version 26.0. The study model was evaluated using Smart PLS 3.0 software and partial least squares (PLS) analysis. The constructs' validity and reliability were examined using the measurement model. After that, the structural model was examined using the SEM methodologies recommended (Hair et al., 2016).

The relevance of the route coefficients and loadings were tested using a bootstrapping approach (5000 resamples) (Hair et al., 2016). We also used PLS prediction to quantify the degree of prediction error, as stated by (Shmueli et al., 2019).

After confirmatory factor analysis, the Factor Loading values, Cronbach Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE) for all latent components were examined, as presented in Table 2. The item loadings were all over the .6 criteria (Chin, Peterson, & Brown, 2008). The Cronbach alpha, which assesses the internal consistency of items, was much higher than the required figure of .70 (Hair et al., 2016). Table 2 shows that composite reliability values are above the indicated threshold of .7, while AVE exceeded the advised value of .5. (Hair et al., 2016). The model is suitable for analysis because all of the constructs have achieved convergent validity, internal reliability, and construct reliability.

Table 2
Measurement Reliability

| Latent Variables       | Items (Indicators) | Factor Loadings | Indicator Reliability (I.E. Loadings2) | Composite Reliability | Discriminate Validity |
|------------------------|--------------------|-----------------|----------------------------------------|------------------------|-----------------------|
| Covid 19               | CD1                | .53             | .47                                    |                        |                       |
|                        | CD2                | .67             | .45                                    |                        |                       |
|                        | CD3                | .67             | .45                                    |                        |                       |
|                        | CD4                | .89             | .79                                    | .84                    | .58                   |
|                        | CD5                | .78             | .61                                    |                        |                       |
|                        | TH1                | .84             | .71                                    |                        |                       |
|                        | TH2                | .90             | .81                                    |                        |                       |
|                        | TH3                | .89             | .80                                    |                        |                       |
|                        | TH4                | .91             | .84                                    | .95                    | .75                   |
|                        | TH5                | .85             | .72                                    |                        |                       |
|                        | TH6                | .73             | .54                                    |                        |                       |
|                        | CB1                | .95             | .90                                    |                        |                       |
| Technology             | TH2                | .87             |            |                        |                       |
|                        | TH3                | .80             |            |                        |                       |
|                        | TH4                | .84             |            |                        |                       |
|                        | TH5                | .72             |            |                        |                       |
|                        | TH6                | .54             |            |                        |                       |
|                        | CB1                | .95             | .90                                    |                        |                       |
| Competence of business | CB2                | .96             | .93                                    | .95                    | .85                   |
| managers               | CB3                | .93             | .87                                    |                        |                       |
|                        | CB4                | .84             | .70                                    |                        |                       |
|                        | CB5                | .85             | .75                                    |                        |                       |
|                        | CB6                | .73             | .87                                    |                        |                       |
| Firm productivity      | FM1                | .74             | .75                                    |                        |                       |
|                        | FM2                | .87             | .76                                    |                        |                       |
|                        | FM3                | .75             | .84                                    |                        |                       |
|                        | FM4                | .75             | .84                                    | .85                    | .76                   |
|                        | FM5                | .74             | .84                                    |                        |                       |
|                        | FM6                | .72             | .83                                    |                        |                       |

Note: CD (Covid-19); TH (Technology); CB (Competence of business managers); FM (Firm productivity)

The model is next checked for collinearity using the variance inflation factor (VIF). The collinearity values of the various constructs tested using VIF are shown in Table 3. The VIF values of the individual constructions are fewer than Lim's (2006) proposed limit value of five (5). This indicates that the model has no collinearity issues (Hair et al., 2016).
Table 3
Collinearity Value Assessed by VIF

| Items  | VIF   |
|--------|-------|
| CD1    | 2.258 |
| CD2    | 1.986 |
| CD3    | 2.469 |
| CD4    | 2.997 |
| CD5    | 1.586 |
| TH1    | 2.145 |
| TH2    | 1.254 |
| TH3    | 1.569 |
| TH4    | 1.920 |
| TH5    | 2.297 |
| TH6    | 2.076 |
| CB1    | 1.360 |
| CB2    | 1.347 |
| CB3    | 1.941 |
| CB4    | 1.935 |
| CB5    | 1.555 |
| CB6    | 1.845 |
| FM1    | 1.784 |
| FM2    | 1.945 |
| FM3    | 1.845 |
| FM4    | 1.751 |
| FM5    | 1.754 |
| FM6    | 1.451 |

Note. VIF (variance inflation factor); CD (Covid-19); TH (Technology); CB (Competence of business managers); FM (Firm productivity)

Fornell-Criterion Larcker's was initially used to ascertain the model's discriminant validity (DV). The DV test was to examine the degree of each variable in the model and if it replicates itself. Table 4 revealed that AVE square root (diagonal values) of each individual construct is larger than the corresponding correlation coefficients, implying appropriate DV (Fornell & Larcker, 1981).

Table 4
Fornell-Larcker’s Discriminant Validity

| Constructs                     | 1   | 2   | 3   | 4   |
|--------------------------------|-----|-----|-----|-----|
| Covid-19                       | .89 |     |     |     |
| Technology                     | .50 | .79 |     |     |
| Competence of business managers| .56 | .54 | .84 |     |
| Firm productivity              | .38 | .35 | .40 | .84 |

Note. CD (Covid-19); TH (Technology); CB (Competence of business managers); FM (Firm productivity)

According to some recent criticisms of the Fornell and Larcker (1981) criteria, it was discovered that it does not bring out the true reflection since the absence of DV is not known (Henseler et al., 2015). Henseler et al. (2015) proposed using the multi-trait-multimethod matrix to calculate the DV of the heterotrait-monotrait (HTMT) ratio of correlation. The DV was assessed using this novel approach, and the results are shown in Table 5. The DV issue occurs when the HTMT value exceeds the threshold value of .85 (Kline, 2011) for the first criteria. However, all of the results were below the HTMT threshold of .85, as shown in Table 5.

Table 5
Heterotrait-Monotrait Ratio (HTMT) for Discriminant Validity (DV)

| Constructs                     | 1   | 2   | 3   |
|--------------------------------|-----|-----|-----|
| Covid-19                       | .58 |     |     |
| Technology                     |     | .71 |     |
| Competence of business managers| .62 | .40 | .46 |

Note. CD (Covid-19); TH (Technology); CB (Competence of business managers); FM (Firm productivity)
Assessment of the Structural Mode

The relationships between the variables are developed to test the study's premise. COVID-19 affected business managers' competence positively ($\beta = .49$, $t = 13.83$, $p = .01$), and business managers' competence positively influenced technology ($\beta = .09$, $t = 3.28$, $p = .01$). Firm production was favorably impacted by business management competence ($\beta = .10$, $t = 2.75$, $p = .01$) (See Table 6 for details.) Furthermore, technology and firm productivity account for 53.0 percent of the total variation in business manager competence; hence, $R^2 = .53$ (See Table 6), which is higher than Cohen's (1998) value of .26, indicating that the model is significant. Figure 2 presents the structural model results.

Figure 2
The Structural Model
Table 6
Hypotheses Testing

| Hypotheses | Path Coefficient (β) | t     | p   | Decision |
|------------|----------------------|-------|-----|----------|
| H1: CD>>CB | .49                  | 13.83 | .000| Supported |
| H2: CB>>TH | .09                  | 3.28  | .001| Supported |
| H3: CB>>EP | .10                  | 2.75  | .007| Supported |

Note. Critical t-statistics, *1.96 (P < 0.01); CD (Covid-19); TH (technology); CB (competence of business managers); FM (firm productivity)

The effect sizes (f²) were then calculated using Cohen's (1998) threshold values of .02, .15, and .35, respectively, for small, medium, and large effects. With an f² value of .30, COVID-19 strongly influences business manager competence, as seen in Table 7. Furthermore, both technology and company productivity had a minor but significant influence on business manager competence, with f² values of .01 and .01, respectively.

Table 7
Effects Size

| Relationships | f square (f²) | Effect Size |
|---------------|--------------|-------------|
| H1: CD>>CB    | .30          | Strong      |
| H2: CB>>TH    | .01          | Small       |
| H3: CB>>FP    | .01          | Small       |

Note. CD (Covid-19); TH (Technology); CB (Competence of business managers); FM (Firm productivity)

Moreover, the effect of the R² and f², which was used to predict (Q²) may effectively illustrate the model's relevance (Chin et al., 2008). Cross-validated redundancy approaches were used to get the study's Q². A Q² number greater than zero (0) indicates that the model is predictively relevant; whereas, a Q² value less than zero indicates that the model is not predictively relevant. As a result, the model's Q² score of .38 presented in Table 8 indicated that it had adequate predictive relevance.

Table 8
Predictive Relevance

| Construct                      | R square (R²) | Adjusted R² | Q square (Q²) |
|--------------------------------|---------------|-------------|--------------|
| Competence of business managers| .53           | .52         | .38          |

The PLS-SEM Q² was able to predict values for all the indicators for measuring the model, which was the accepted criteria for analyzing the prediction error degree (Shmueli et al., 2019). Table 9 revealed that Q² predictive values were bigger than zero (0), an indication the distribution of prediction errors was very symmetrical. The RMSE values of the PLS SEM analysis were then compared to the naïve LM benchmark (Table 9); the PLS-SEM analysis yields fewer forecast errors for all metrics. For example, the RMSE values of CB1-CB6 for model estimation using PLS-SEMs are .66, .38, .51, .39, .39, .45, whereas LM gives RMSE values of .69, .38, .52, .39, .39, .47 for same indicators. Because all PLS-SEM indicators are smaller than the predicted LM-RMSE values, the model has a strong predictive potential, as shown in Table 9.

Table 9
PLS Assessment of Manifest Variable (Original Model)

| PLS | RMSE | Q² predict | LM | RMSE | (PLS RMSE)+(LM RMSE) |
|-----|------|------------|----|------|----------------------|
| CB1 | .66  | .46        | CB1| .69  | .031                 |
| CB2 | .38  | .48        | CB2| .38  | .005                 |
| CB3 | .51  | .42        | CB3| .52  | .006                 |
| CB4 | .39  | .42        | CB4| .39  | .003                 |
| CB5 | .39  | .43        | CB5| .39  | .003                 |
| CB6 | .45  | .19        | CB6| .47  | .014                 |

Note. *RMSE: Root Mean Squared Error; *LM: Linear Regression Model; CB, (Competence of business managers).
The study examined the COVID-19 pandemic, business manager competency, and the success of the FMCG industry. Three hypotheses were investigated using SEM, and a narrative discourse was examined. The findings, indicated that the pandemic had a significant impact on the competence of business managers in the FMCG industry as a result of the Ghanaian government's mandatory lockdown, which resulted in retrenchment, low firm productivity, low customer retention, an increase in the unemployment rate, and business closure. According to Bloomberg (2020), businesses which faced liquidation and survival issues all across the world was due to the pandemic. This proves that the survival-based theory and profit maximization theory support these findings since firms that cannot produce at full capacity or maximize profit faces the danger of not surviving and thriving. Thus, within the 21st century, the business environment is changing at such a breakneck pace that a firm can barely get anything done without completely incorporating technology into its operations. This is why many firms fail to meet customer expectations online, while rivals employ technology to cater to both existing and new customers' requirements (Mutlu et al., 2015). Many FMCG companies, according to the data, have low technology adoption throughout their value chain. As a result, firms must completely integrate IT into their value chain to minimize risks that might have a detrimental influence on performance (Mutlu et al., 2015). The findings corroborate the profit maximization and survival-based theories, since all organizations seek the most efficient means to maximize profit, and hence will do whatever legally feasible to keep the business running. Furthermore, the findings demonstrate that the pandemic has an impact on company productivity and business manager competence in the FMCG industry. Firms, particularly those regarded as important product makers, had to cut their staff and production schedules, challenging optimal performance. Customer requirements, supply, company income, and profitability which influenced firm productivity (World Bank, 2020). This discovery was also consistent with the concept of profit maximization and survival-based theory, since profit and survival can only be attained when organizations produce at their optimum capacity; otherwise, corporations would seek any way to continue in business, even severely cutting staff.

**Implications**

The COVID-19 pandemic has ushered in a new normal for business operations around the world, particularly in FMCG firms. It has exposed various weaknesses in operational flexibility, technology advancement, and willingness to accept change as levied by internal and external business pressures (Lynch et al., 2020; Michie, 2020). The contemporary business climate is dynamic and diverse, which adds to the level of uncertainty. As a result, business managers' ability to integrate IT into value chain activities is critical. The world is changing at a breakneck pace, prompting many businesses to shift their client engagement strategies from traditional to digital (Dadzie et al., 2017). To keep firm consumers interested, pleased, and retained, businesses that survive the pandemic must completely implement a digital content marketing communication strategy and thoroughly incorporate technology into their value chains (Dadzie et al., 2017; Mutlu et al., 2015).

**Conclusion**

COVID-19 has become a worldwide phenomenon that is wreaking havoc around the globe, as well as a severe issue for a variety of businesses, governments, and individuals at all levels.
This article investigates the COVID-19 epidemic and business manager competency as a mediator of FMCG firm performance. The study found a link between the COVID-19 epidemic and business manager competence, company productivity, and firm technology adoption in the FMCG market. However, this study highlights the critical necessity for the Ghanaian government to implement feasible policy frameworks and economic reforms in order to guarantee that the economy is revived and placed on a path of growth and development that reduces company productivity. They must also provide a pathway for enterprises to develop and survive in the country.

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