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# A Descriptive Statistical Analysis of the Interrelationship Between the COVID-19 Pandemic, Human Resources Management and Employees at a Higher Learning Institution in Trinidad and Tobago

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## Abstract

An organization today has to remain alert and adaptive to unforeseen events, such as the COVID 19 pandemic crisis, which has created increased uncertainty among employees and pose immediate threats to the organizations' performance and viability. The college suddenly has to navigate the unprecedented impact of the virus and at the same time find new solutions to challenges arising across many areas of its operations. The researcher has identified that the COVID 19 pandemic has impacted on the employees and the human resource management (HRM) system of the college. The employer has demonstrated concern for employees by implementing policies to cope with and adjust to their newly altered work environment.

*Keywords:* human resource management; employee adjustment; COVID-19 pandemic.

## 1. Introduction

COVID-19, short for "Coronavirus disease 2019," is the official name given by the World Health Organization to the disease caused by a newly identified coronavirus. The World Health Organization (WHO) defines the Coronavirus 19 disease as an infectious disease caused by a newly discovered coronavirus.

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The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes. It is a disease that is identified as a pandemic as it can affect a very large number of human beings living in an area. It has the potential of spreading very quickly from one person to many people. COVID-19 is a zoonotic disease that can spread from an infected person-to-person. Spreading occurs between people who are in close contact with one another within about 6 feet; and via respiratory droplets produced when an infected person coughs or sneezes (these droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs). It is believed patients are at their most contagious when they are most symptomatic, and some spread might be possible before people show any symptoms. The WHO instructs that you must engage in actions such as washing your hands or using an alcohol-based rub frequently and not touching your face, and practising respiratory etiquette (for example, by coughing into a flexed elbow) for protection of yourself and others from infection.   According to the Caribbean Public Health Agency (CARPHA), the COVID 19 virus is very active in the Caribbean communities. The status of the disease's impact in Trinidad and Tobago on the 29th of August 2020 was highlighted in Table 1.

**Table 1**

| COVID 19 POSITIVE CASES | 3901 |
|---|---|
| COVID 19 RECOVERED CASES | 762 |
| COVID 19 DEATHS | 65 |
| COVID 19 ACTIVE CASES | 2083 |

## 2. Literature Review

Employees are the lifeblood of any organization and there are no organizations which are employee-less. Employees are human resources which are unique when compared them with all other resources such as financial, physical, and intangible resources. According to the author in [1], all these other resources make things possible but only human resources make things materialized. The essence of management is decision making and decisions are made only by employees in the organizations and such made decisions are implemented too only by employees. Creativity and innovation are the drivers of organizational development, nation development, and global development as well and those two drivers are possessed by human resources who are identified as human capital. Perhaps one of the most salient HRM challenges stemming from the COVID-19 pandemic involves adjusting new and current employees to drastically altered work conditions, such as shifting to remote work environments or implementing new workplace policies and procedures to limit human contact. Such dramatic alterations in how and where employees do their work is likely to have important implications for employees' experiences of person-environment fit (P-E fit) or the level of congruence between the attributes they possess and those of the environment [2]. P-E fit theory posits that individuals are attracted to and selected by organizations whose work environments reflect the same values, cultures, and work features as their own important beliefs, values, and desires [3]. According to the authors in [4], based upon these processes, employees who enter organizations where their P-E fit is maximized typically flourish and experience heightened levels of satisfaction, engagement, and overall well- being [4]. However, when the work environment that supports the fulfilment of these needs and desires is drastically altered – as is currently

happening in response to the COVID-19 pandemic – the saliency of the growing chasm between an individual's needs and current work environment is likely to lead to experiences of misfit [5]. The COVID-19 pandemic has created a particularly challenging environment for human resource management (HRM) – with managers having to quickly venture into the "unknown unknowns" as they strive to help their workforce adapt to and cope with radical changes occurring in the work and social environment. For example, employees who formerly spent all or most of their time working inside their organization's physical boundaries now have to quickly adjust to remote work environments. Due to shelter in place orders and the closure of non- essential businesses, even those who might be well adjusted to remote working conditions are now faced with their unique challenges due to an inability to seek alternative workspaces (e.g., cafés, libraries, coworking-spaces) outside of the home itself. This has likely further limited the segmentation between work and private spheres leading to greater difficulties in "unplugging" from work demands [6]. Aside from the increased inability to separate work and private life, the closure of schools and child- care services have increased parental demands for employees, further blurring the lines between work and family spheres. While these work-family interconnections seem particularly demanding for employees with children, single and childless workers are not immune to the negative consequences of such altered working conditions, as they may be at greatest risk of loneliness, a felt lack of purpose and associated negative effects on well-being [7].

**The Dependent Variable: COVID 19 virus is** responsible for the pandemic disease that is affecting human populations around the world. Its impact is having serious consequences within the Human Resource Management and business environments.

**The Independent Variables**:  Employees personality,  employees feeling about the college, employees ease or difficulty in working effectively these days, employees working remotely, employees working from home arrangements, employees concern about the director's handling of business concerns, employees confident in the director's making the right decision to manage the crisis, employees confident in having the right resources and benefits, employees confident of having made the right support network to help you through the crisis.

## 3. Research Methods

The study utilized the use of descriptive statistics. Descriptive statistics are used to describe the basic features of the data in the study. They provide simple summaries about the sample and measures. Together, with the simple tables' analysis, they form the basis of virtually every quantitative analysis data. Mean, median, mode, and standard deviation. The sample size used in this research study was initially intended to be 40 however due to a lower number of responses received from questionnaires sent out, the sample size was reduced to a total of 12. All calculations were conducted at a 95% level of confidence.

From Table 2 above we can see that most of the population at a percentage of 33.3 are very worried about the impact of COVID-19 on their personality followed by 25% each stating they were not so worried and not worried at all. A lower percentage of 16.7 of the population claimed they were some-what worried while none claimed to be extremely worried.

**Table 2**

| How worried the population are about the impact of COVID 19 on their personality | Frequency | Relative Frequency (%) |
|---|---|---|
| Extremely worried | 0 | 0 |
| Very worried | 4 | 33.3 |
| Some-what worried | 2 | 16.7 |
| Not so worried | 3 | 25 |
| Not worried at all | 3 | 25 |
| Total | 12 | 100 |

**Table 3**

| How worried the population are about the impact of COVID 19 on their personality | |
|---|---|
| Mean | 3.42 |
| Standard Error | 0.36 |
| Median | 3.50 |
| Mode | 2 |
| Standard Deviation | 1.24 |
| Range | 3 |
| Minimum | 2 |
| Maximum | 5 |
| Count | 12 |

Note: 1 = Extremely worried, 2 = Very worried, 3 = Some-what worried, 4 = Not so worried, 5 = Not at all worried

From Table 3 above the most frequently occurring option selected by the population was 2 which represents very worried as denoted by the mode and our middle value (when ordered from lowest to highest) resulted in a median of 3.5. The minimum value selected by the population being 2 representing very worried indicates that no one was extremely worried. The mean was calculated to be 3.42 with a standard deviation away from the mean of 1.24.

**Table 4**

| How worried the population are about the impact of COVID 19 on the college | Frequency | Relative Frequency (%) |
|---|---|---|
| Extremely worried | 2 | 16.7 |
| Very worried | 6 | 50 |
| Some-what worried | 2 | 16.7 |
| Not so worried | 0 | 0 |
| Not worried at all | 2 | 16.7 |
| Total | 12 | 100 |

From Table 4 above we can see that most of the population at a percentage of 50 are very worried about the

impact of COVID-19 on the college followed by 16.7% each stating they were extremely worried, some-what worried and not worried at all. However, no one claimed to be not so worried.

**Table 5**

| How worried the population are about the impact of COVID 19 on the college | |
| --- | --- |
| Mean | 2.5 |
| Standard Error | 0.38 |
| Median | 2 |
| Mode | 2 |
| Standard Deviation | 1.31 |
| Range | 4 |
| Minimum | 1 |
| Maximum | 5 |
| Count | 12 |

Note: 1 = Extremely worried, 2 = Very worried, 3 = Some-what worried, 4 = Not so worried, 5 = Not at all worried

From Table 5 above the most frequently occurring option selected by the population was 2 which represents very worried as denoted by the mode and our middle value (when ordered from lowest to highest) resulted in a median of 2 as well and hence indicating the option of being very worried. The mean was calculated to be 2.5 with a standard deviation away from the mean of 1.31.

**Table 6**

| How easy or difficult is it for the population to work effectively these days | Frequency | Relative Frequency (%) |
| --- | --- | --- |
| Very easy | 2 | 16.7 |
| Some-what easy | 1 | 8.3 |
| Neither easy nor difficult | 2 | 16.7 |
| Some-what difficult | 6 | 50 |
| Very difficult | 1 | 8.3 |
| Total | 12 | 100 |

From Table 6 above we can see that most of the population at a percentage of 50 find it some-what difficult to work effectively these days followed by 16.7% each stating, they found it very easy and neither easy nor difficult. A lower percentage of 8.3 each stated they find it some-what easy and very difficult.

**Table 7**

| How easy or difficult is it for the population to work effectively these days | |
| --- | --- |
| Mean | 3.25 |
| Standard Error | 0.37 |
| Median | 4 |
| Mode | 4 |
| Standard Deviation | 1.29 |
| Range | 4 |
| Minimum | 1 |
| Maximum | 5 |
| Count | 12 |

Note: 1 = Very easy, 2 = Some-what easy, 3 = Neither easy nor difficult, 4 = Some-what difficult, 5 = Very difficult

From Table 7 above the most frequently occurring option selected by the population was 4 which represents some-what difficult as denoted by the mode and our middle value (when ordered from lowest to highest) resulted in a median of 4 as well and hence indicating the option of some-what difficult. The mean was calculated to be 3.25 with a standard deviation away from the mean of 1.29.

**Table 8**

| Thinking about the current work from home arrangements, how long does the population think this is something they could maintain | Frequency | Relative Frequency (%) |
| --- | --- | --- |
| It is not sustainable now | 3 | 25 |
| One week | 1 | 8.3 |
| A few weeks | 0 | 0 |
| About a month | 1 | 8.3 |
| Two months | 0 | 0 |
| Three or more months | 7 | 58.3 |
| Total | 12 | 100 |

From Table 8 above we can see that most of the population at a percentage of 58.3 thinks that the length of three or more months can be maintained for current work from home arrangements followed by 25% suggesting it is not sustainable now. A lower percentage of 8.3 each stated that one week and about a month could be maintained while no one thought that a few weeks or two months could be maintained.

**Table 9**

| Thinking about the current work from home arrangements, how long does the population think this is something they could maintain | |
|---|---|
| Mean | 4.25 |
| Standard Error | 0.66 |
| Median | 6 |
| Mode | 6 |
| Standard Deviation | 2.30 |
| Range | 5 |
| Minimum | 1 |
| Maximum | 6 |
| Count | 12 |

Note: 1 = It is not sustainable now, 2 = One week, 3 = A few weeks, 4 = About a month, 5 = Two months, 6 = Three or more months

From Table 9 above the most frequently occurring option selected by the population was 6 which represents three or more months as denoted by the mode and our middle value (when ordered from lowest to highest) resulted in a median of 6 as well and hence indicating the option of three or more months. The mean was calculated to be 4.25 with a standard deviation away from the mean of 2.30.

**Table 10**

| How often would the population like the director to communicate how the college will handle business concerns due to the COVID-19 pandemic | Frequency | Relative Frequency (%) |
|---|---|---|
| Every day | 0 | 0 |
| A few times a week | 6 | 50 |
| Less often than that | 6 | 50 |
| Total | 12 | 100 |

From Table 10 above we can see that most of the population at a percentage of 50 each suggested they would like the director to communicate how the college will handle business concerns due to the COVID-19 pandemic a few times a week and less often than that. No one suggested for daily communication.

From Table 11 above the most frequently occurring option selected by the population was 3 which represents less often than that as denoted by the mode and our middle value (when ordered from lowest to highest) resulted in a median of 2.50. The minimum value selected by the population being 2 representing a few times a week indicates that no one suggested for communication every day. The mean was calculated to be 2.50 with a standard deviation away from the mean of 0.52.

**Table 11**

| How often would the population like the director to communicate how the college will handle business concerns due to the COVID-19 pandemic | |
|---|---|
| Mean | 2.50 |
| Standard Error | 0.15 |
| Median | 2.50 |
| Mode | 3 |
| Standard Deviation | 0.52 |
| Range | 1 |
| Minimum | 2 |
| Maximum | 3 |
| Count | 12 |

Note: 1 = Every day, 2 = A few times a week, 3 = Less often than that

**Table 12**

| How confident are the population in the director to make the right decisions to manage through the COVID-19 crisis | Frequency | Relative Frequency (%) |
|---|---|---|
| Extremely confident | 2 | 16.7 |
| Very confident | 2 | 16.7 |
| Some-what confident | 8 | 66.7 |
| Not so confident | 0 | 0 |
| Not confident at all | 0 | 0 |
| Total | 12 | 100 |

From Table 12 above we can see that most of the population at a percentage of 66.7 suggested that they were somewhat confident in the director to make the right decisions to manage through the COVID-19 crisis followed by 16.7% each stating, they were extremely confident and very confident in the director. No one claimed to be not so confident and not confident at all.

From Table 13 above the most frequently occurring option selected by the population was 3 which represents some-what confident as denoted by the mode and our middle value (when ordered from lowest to highest) resulted in a median of 3 as well and hence some-what confident. The maximum value selected by the population being 3 representing some-what confident indicates that no one felt not so confident and not confident at all in the director to make the right decisions to manage through the COVID-19 crisis. The mean was calculated to be 2.50 with a standard deviation away from the mean of 0.80.

**Table 13**

| How confident are the population in the director to make the right decisions to manage through the COVID-19 crisis | |
|---|---|
| Mean | 2.50 |
| Standard Error | 0.23 |
| Median | 3 |
| Mode | 3 |
| Standard Deviation | 0.80 |
| Range | 2 |
| Minimum | 1 |
| Maximum | 3 |
| Count | 12 |

Note: 1 = Extremely confident, 2 = Very confident, 3 = Some-what confident, 4 = Not so confident, 5 = Not confident at all

**Table 14**

| How confident are the population that they have the right resources and benefits from the college to help support them through the COVID-19 crisis | Frequency | Relative Frequency (%) |
|---|---|---|
| Extremely confident | 0 | 0 |
| Very confident | 2 | 16.7 |
| Some-what confident | 5 | 41.7 |
| Not so confident | 3 | 25 |
| Not confident at all | 2 | 16.7 |
| Total | 12 | 100 |

From Table 14 above we can see that most of the population at a percentage of 41.7 claimed they were somewhat confident that they have the right resources and benefits from the college to help support them through the COVID-19 crisis followed by 25% claiming they were not so confident. A lower percentage of 16.7 each claimed to be very confident and not confident at all while no one claimed to be extremely confident.

**Table 15**

| How confident are the population that they have the right resources and benefits from the college to help support them through the COVID-19 crisis | |
|---|---|
| Mean | 3.42 |
| Standard Error | 0.29 |
| Median | 3 |
| Mode | 3 |
| Standard Deviation | 0.99 |
| Range | 3 |
| Minimum | 2 |
| Maximum | 5 |
| Count | 12 |

Note: 1 = Extremely confident, 2 = Very confident, 3 = Some-what confident, 4 = Not so confident, 5 = Not confident at all

From Table 15 above the most frequently occurring option selected by the population was 3 which represents some-what confident as denoted by the mode and our middle value (when ordered from lowest to highest) resulted in a median of 3 as well and hence some-what confident. The minimum value selected by the population being 2 representing that they were very confident they have the right resources and benefits from the college to help support them through the COVID-19 crisis indicates that no one claimed to be extremely confident. The mean was calculated to be 3.42 with a standard deviation away from the mean of 0.99.

**Table 16**

| Outside their work, how confident are the population that they have the right support network to help them through this COVID-19 crisis | Frequency | Relative Frequency (%) |
|---|---|---|
| Extremely confident | 1 | 8.3 |
| Very confident | 3 | 25 |
| Some-what confident | 5 | 41.7 |
| Not so confident | 2 | 16.7 |
| Not confident at all | 1 | 8.3 |
| Total | 12 | 100 |

From Table 16 above we can see that most of the population at a percentage of 41.7 claimed they were somewhat confident that they have the right support network to help them through this COVID-19 crisis followed by 25 % claiming they were very confident. A lower percentage of 16.7% claimed to be not so confident while 8.3% each claimed to be extremely confident and not confident at all.

**Table 17**

| Outside their work, how confident are the population that they have the right support network to help them through this COVID-19 crisis | |
|---|---|
| Mean | 2.92 |
| Standard Error | 0.31 |
| Median | 3 |
| Mode | 3 |
| Standard Deviation | 1.08 |
| Range | 4 |
| Minimum | 1 |
| Maximum | 5 |
| Count | 12 |

Note: 1 = Extremely confident, 2 = Very confident, 3 = Some-what confident, 4 = Not so confident, 5 = Not confident at all

From Table 17 above the most frequently occurring option selected by the population was 3 which represents some-what confident as denoted by the mode and our middle value (when ordered from lowest to highest) resulted in a median of 3 as well and hence some-what confident. The mean was calculated to be 2.92 with a standard deviation away from the mean of 1.08.

## 4. Discussion and Conclusion

The researcher has acknowledged that the COVID 19 disease is an infectious disease which spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes. As a pandemic, it has the potential to paralyze the entire industrial and commercial workings of the business communities. Research has shown that the disease has a tremendous negative impact on an organization's human resource management and its employees. The results of the analysis of the descriptive statistics methods have identified that employees' responses to the questionnaire revealed a variation in the impact to the COVID 19 pandemic. The variation of the impacted is displayed on the tables. According to the World Health Organization (2020) employers – must play a role if we are to stop the spread of this disease by ensuring employee health through the prevention and control of the pandemic would ensure the smooth running of the operations of the organization. Preventive actions will have to be taken before employees become infected and corrective actions will have to be taken after employees become infected. The study has identified employees as the lifeblood of the organization. The employer has demonstrated concern for employees by implementing policies to cope with and adjust to their newly altered work environment. The main focus of these policies is the taking of precautions to ensure employee protection from this pandemic. A discussion of these actions is beyond the objective of this research paper. Hence future conceptual and empirical research studies are needed to know the role of human resource management (HRM) in the prevention and control of the COV I9 pandemic.

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