

The
Management
University
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POSTGRADUATE UNIVERSITY EXAMINATIONS
SCHOOL OF MANAGEMENT AND LEADERSHIP
DEGREE OF DOCTOR OF PHILOSOPHY IN MANAGEMENT AND
LEADERSHIP

DML 902: ADVANCED RESEARCH METHODOLOGY

DATE: 30TH NOVEMBER 2019

DURATION: 3 HOURS

MAXIMUM MARKS: 50

INSTRUCTIONS:

1. Write your registration number on the answer booklet.
2. **DO NOT** write on this question paper.
3. This paper contains **FOUR (4)** questions.
4. Question **ONE** is compulsory.
5. Answer any other **TWO** questions.
6. Question **ONE** carries **30 MARKS** and the rest carry **10 MARKS** each.
7. Write all your answers in the Examination answer booklet provided.

QUESTION ONE

Read the Case Study below carefully and answer the questions that follow:

Read the article extract below and answer the questions that follow

INDUSTRY FORCES

There have been attempts to examine the relationships among Strategy, Industry forces, Internal Resources and Organizational Performance (Prescott, 1986). However, research examining the relationship has not adequately addressed the issue of the type of variable industry forces and internal resources are related to performance, moderators of the relationship or some combination of the two. According to Porter (1981), most scholars attribute firm performance to competitive forces within and without the firm and therefore, it has been difficult to distinguish the relative roles of resources and industry forces in explaining firm performance. Scholars consistently strive to understand why some firms persistently outperform others. Grant (2001) carried out a cross sectional survey of 20 companies among the U.S top 100 companies with the highest ratios of stock price to book value on a study investigating the implications of resource-based theory (RBV) on strategy formulation and performance. From his empirical findings he established that resources and capabilities of a firm are the central considerations in formulating its strategy. He also noted that a firm's resources are the primary constants upon which a firm can establish its identity and frame its strategy and that they are the primary sources of a firm's profitability. In contrast Mahdi et al. (2012) conducted a literature review of relationship between industry forces which they named as market orientation and performance among 61 articles within Asian sphere since 1995 to 2010. The survey showed an upward trend in studying industry forces and performance relationship among strategy researchers. The study also found some industry forces variables directly related to and at the same time moderators of performance within manufacturing and service industries. They concluded that in today's highly competitive global markets, managers strive to improve organizational effectiveness through identification of organizational strategies which linked to performance and that competitive industry influence is prominent subject that has emerged as a significant predictor of performance, and it is presumed to contribute to long term success. Sven et al. (2007) also conducted a cross-sectional sample survey of 530 hotels within Norwegian hotel industry. They established that industry forces have only a modest effect on relative productivity and no effect on return on assets and that the strongest effect of industry forces on performance was found when applying the subjective performance measures. According to Powell (1996), both the internal resource conditions and industry forces have been used to explain superior organizational performance. Makhija (2003) contrasted the resource-

based view (RBV), with industry forces in a cross-sectional sample survey of 988 Czech firms undergoing privatization. The empirical findings of her study showed that the RBV-driven variables are remarkably better at explaining performance of Czech firms in the period of privatization than industry-driven variables. These results underscore the role of firm resources as a primary determinant of firm value in rapidly changing environments. Makhija (2003) anchored her argument on the findings of Grant (2001) who noted that a firm's resources and capabilities take on greater importance in determining its performance when the external environment is in a state of flux compared to industry forces. Lui (2005) also conducted cross-sectional survey on 28% of IT sectoral level of Taiwan to investigate industry- and firm- level effects on profitability differentials among firms. His empirical findings indicate that firm effects, which arise from various technological resources, and capabilities that are consistent with the resource-based view of the firm, have a large influence on performance, and industry effects, which are from structural characteristics, have a little impact on performance differentials among IT firms of Taiwan. As Henderson and Mitchell (1997) pointed out, there remains little consensus on the relative role of these two influences on firm performance, and the reason is that a firm's organizational capabilities and market position are fundamentally intertwined and that more research is needed to understand the range of factors influencing the relationship between competitive forces and performance. They noted that both resource conditions and industry forces are clearly important in shaping strategy and performance. Research needs to be undertaken around these variables among Small and Medium Enterprises in Kenya where such concerns are often raised.

Required:

- a) Referring to the article, construct any possible appropriate research topic containing independent, moderating, mediating and dependent variables that researcher may use to investigate the concerns raised in the article (3 Marks)
- b) Construct at least **three** null hypotheses to test possible relationships between the four variables identified in question 1 (a) above. (3 marks)
- c) Distinguish between longitudinal and cross-sectional research designs. Explain the most appropriate one for the study identified in question 1 (a) above (4Marks).
- d) Construct a conceptual model to diagrammatically show the possible relationships among the variables identified in question 1 (a) above. Under each main variable, identify and indicate in the diagram, at least one indicator that can operationalize each variable (10 marks).

- e) You have decided to use multiple regression analysis to test a hypothesis which assumes that all the variables in question 1 above are independently influencing organizational performance. Construct a linear multiple regression equation that would be used as a mathematical model in this case. Further, explain how you would conduct elasticity analysis for the established regression equation.
- (10 marks).**

QUESTION TWO

- (a) You have been using two types of tooth pastes X and Y. Which sample techniques can you use if the objective is to determine the effectiveness of the toothpastes for this research? **(2 Marks)**
- (b) Which one is your independent variable? **(1 Mark)**
- (c) Which statistical test can you use to establish the best performing tooth paste? **(1 Mark)**
- (d) Either Chi-square or Pearson's correlation coefficient (r) may be used to establish the nature of relationship between variables. Distinguish their application with reference to the type of variables under the study **(2 Marks)**
- (e) Explain any two (2) differences between nominal and ratio scale of measurements in research. **(4 marks)**

QUESTION THREE

- (a) You have embarked on writing your research thesis report after successful data collection. Briefly explain the stages in thesis report writing **(5 Marks)**
- (b) Examine any five sources of research problem identification. **(5 marks)**

QUESTION FOUR

- a) You are undertaking a study on performance of Universities in Kenya. Explain how homogeneity in the unit of analysis can be attained through stratified random sampling **(5 Marks)**
- b) Questionnaire construction is a critical stage in scientific research. Explain any **five** essentials of a good questionnaire **(5 marks)**