



INDIAN INSTITUTE OF MATERIALS MANAGEMENT

Post Graduate Diploma in Materials Management

Dec 2017

Graduate Diploma in Materials Management

PAPER No. 13

Research Methodology

Date : 17.12.2017

Max. Marks :100

Time : 10.00 a.m to 1.00 pm

Duration : 3 Hrs.

Instructions :

1. Part A: Four Questions (Q 1 to Q 4). All questions are compulsory. Each Question carries 1 mark. (Total marks 32).
2. Part B: From Part B answer any three out of 5 questions. Each question carries 16 marks. (Total marks 48).
3. Part C: (Compulsory). Case study. (Total marks 20)

PART- A

32 marks

Attempt all questions. Each Question carries 1 mark.

Q : 1 State True or False

8 Marks

- a) Research is an art of non scientific investigation.
- b) Induction is a process that reasons from the part to the whole.
- c) Empirical research involves factual investigation.
- d) Research methodology is a method to solve a research problem systematically.
- e) A research problem involves "what needs to be done".
- f) A management problem involves "what information needs to be provided?"
- g) A research brief defines research requirements.
- h) Fundamental research is pure or basic research.

Q. 2 : Fill in the Blanks . (2 marks each)

8 Marks

- a) Descriptive Research can be _____ research or _____ research.
- b) _____ method is most commonly used method of research in the area of social sciences.
- c) Case study method studies a problem with its _____ and _____.
- d) Statistics that already exists is called _____.
- e) Experimentation is a _____ of data collection.
- f) In _____ questionnaire, an interviewer will ask the questions according to pre-arranged order.

- g) Questions with only two answers are _____ questions.
 h) To detect any flaws in a questionnaire _____ is done.

Q : 3 Match the Pairs . (Write full correct pairs)

8 marks

Column A	Column B
A Median	1. Histogram
B z test	2. Non-probability sample
C Lottery method	3. Null set
D Cartogram	4. Positional Average
E Snowball	5. Pictorial presentation
F Band Graph	6. Sample size >30
G Circular diagram	7. Random sample
H $P(\phi)=0$	8. Map diagram

Q : 4 Explain the following: (2 marks each)

8 marks

- a) Pie Charts and Market Research
- b) Focus group and experimental research.
- c) Questionnaire and interview
- d) Finite and infinite sample space.

PART - B

(Answer Any Three Questions)

3 x16 = 48 marks

Q. 5 : Explain In Short :

- | | |
|------------------------------|--------------------------------|
| (a) Ratio Chart | (b) Systematic Random Sampling |
| (c) Cramer Ration Inequality | (d) Price Index Numbers |

Q. 6 : Explain different approaches steps in report writing process.

Q. 7 : Write Notes On .

- | | |
|---------------------------|--------------------------|
| (a) Cox and Stuart Test | (b) One way ANOVA |
| (c) Canonical Correlation | (d) Convenience Sampling |

Q. 8 : (A) Find the mean, median, mode, and range for the following test scores: **8 marks**

2, 2, 3, 5, 5, 7, 8

The Mean: $32/7 = 4.57$

(B) Find Correlation coefficient for X and Y values are given below **8 marks**

$X=(1,2,3,4,5)$

$Y= \{11,22,34,43,56\}$

Calculate the coefficient of correlation.

Q. 9 : (A) Define and Explain the Terms : **8 marks**

(a) Independence of Attributes

(b) Decision Tree Diagram

(B) Discuss different components of research report and guidelines. **8 marks**

PART- C (Compulsory)

20 marks

Q.10 CASE STUDY

COW WOW CEREAL MILK is a two-year-old company that makes milk in breakfast cereal flavors. Founded by Christopher Pouy, a former advertising copywriter seeking to capitalize on a childhood love, it is based in Los Angeles and employs 10. By putting a child-friendly cow on the package and giving his flavors names like Fruity Trudy and Chocolate Chip Cathy, Mr. Pouy branded his product for 5- to 12-year-olds.

THE CHALLENGE: Targeting the right customers. Following unexpected publicity from media outlets and promising sales on a college campus, Mr. Pouy found himself second-guessing his audience — even though he knew that to sell to high schoolers and college students, he would have to rethink his whole brand.

THE BACKGROUND: Schooled in the advertising business at Secret Weapon Marketing, the company that linked a pink bunny to Energizer batteries, Mr. Pouy, 38, worked at big ad agencies and ran his own shop called Chicken Pox — “to spread ideas virally” — for more than a decade. Then his enthusiasm dwindled. “I’d done the same kind of projects so long, I was no longer getting the gratification,” he said. “I wanted to create something I had a stake in and reignite the passion and excitement.”

Mr. Pouy asked himself: “What can I make that’s not already out there? What would I like?” Those questions led him back to his childhood breakfast table, where the best part of his morning cereal came when he put down his spoon, lifted the bowl to his lips and gulped the remaining milk infused with the flavor of Froot Loops or Cocoa Puffs.

Why not give children a more exciting, vibrant range of flavored milk than the Neapolitan palate of chocolate, vanilla and strawberry? Knowing he'd be selling to parents and wanting to "do it in a responsible way," Mr. Pouy insisted on 1 percent organic milk, no artificial flavors or colors, and organic cocoa powder and cinnamon. With six grams of added cane sugar, each 8.5-ounce serving had 150 calories. For packaging, he chose Tetra Paks that did not need refrigeration and had a shelf life of up to a year.

With \$175,000 of his own money, he made his first 9,000 cases in late 2012. A distributor landed some of his milk in convenience stores and gas stations in Southern California, and Mr. Pouy got Cow Wow into Legoland and the Los Angeles Zoo. Then, in April 2013, with the product still in limited local distribution, Cow Wow went viral, much to Mr. Pouy's surprise and joy — at least initially.

Proclaiming that Cow Wow "tastes like heaven," the late-night TV host Jimmy Kimmel riffed on the product for nearly a minute. "Just when the Twinkie dies, we come up with cereal-flavored milk. I've never been prouder to be an American," he said. In June 2013, Cosmopolitan magazine displayed the Fruity Trudy package and hailed Cow Wow as the lead "fun item" in a list of fun stuff. And in September 2013, BuzzFeed included Cow Wow in its list "27 Reasons It's the Greatest Time to Be Alive."

It was great publicity. But there was one problem: the age of the viewers and readers. Mr. Pouy said he quickly realized "these are not the people I'm trying to sell my product to." That disconnect nagged at him as he began talks with an investor, the owner of an incubator, who would ultimately acquire a majority stake in Cow Wow and become a silent partner, leaving Mr. Pouy as president.

By November 2013, still aimed at children, Cow Wow was being put on shelves in the first of 900 Kroger supermarkets. Because Mr. Pouy lacked the resources to offer discounts and coupons, his milk was priced about 20 cents higher than flavored milks in Tetra Paks offered by Organic Valley and Horizon Organic. His sales did not meet expectations. "I was groomed on the more conceptual, marketing side of things, not on pricing or how to enter a market," Mr. Pouy said. "What I found out was, Mom is the most frugal shopper of them all, and price made more of a difference than I thought it would."

Then in May his local distributor, who happened to serve Santa Monica College as well, got Cow Wow into the school's food court. Fifteen cases sold in the first week. The next week, Mr. Pouy stood near his product and watched. "Pretending to be a teacher, I saw people taking all three flavors," including the new C inny Minny, he said, "and that's all they bought."

Q.1 Analyze the above case study and prepare a detailed note of your understanding about the case study.

Students are required do the analysis based on their experience.
