MMPC - 006

MARKETING MANAGEMENT

Q1a) Discuss the terms need, want and demand. Why these terms assume significance for every marketers / business. Discuss

b) Discuss the various marketing philosophies that you are familiar with. Highlight their evolution and limitation in evolution process.

Ans Marketing revolves around understanding consumer behaviour and addressing their needs, wants and demands effectively. Businesses aim to create products and services that cater to these elements, ensuring profitability and customer satisfaction

Definitions

1. Need - A basic human requirement necessary for survival or well-being such as food, water, clothing and shelter.

2 Want -

A specific way in which a need is satisfied, shaped by culture, preference, and personality. For example, a person needs food but may want a pizza.

3. Demand -

A want backed by the ability and willingness to pay for it. For instance, a consumer may want a luxury car but can only demand it if they have the financial resources to purchase it.

Significance in Marketing

- Understanding Consumer Behaviour: Businesses analyze needs, wants, and demands to tailor products and services that attract consumers.

- Market Segmentation: Companies segment the market based on different wants and demands, allowing them to target specific consumer groups

- Product development -
  Organizations design and modify products based consumer preferences, ensuring their offerings align with market needs.

- Pricing Strategies -
  Demand influences pricing, high demand allows premium pricing while low demand may lead to discounts the promotions.

- Customer Satisfaction and Loyalty -
  Addressing needs effectively helps businesses retain customers and build long-term relationships.

B. Marketing Philosophies : Importance and Limitations

- Marketing has evolved through different philosophies, each focusing on different aspects of business operations and consumer needs. Understanding these philosophies helps businesses develop effective marketing strategies.

Various Marketing Philosophies.

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1. Production Concept.

- Focus: Mass production, efficiency and cost reduction.

- Importance: Suitable when demand exceeds supply and cost leadership is crucial.

- Limitations: Ignores customer preferences; Excessive focus on production may lead to unsold stock if demand is miscalculated

2. Product Concept

- Focus: Quality, innovation and superior features

- Importance: Encourages continuous product improvement and differentiation

- Limitations: Assumes consumer prioritizes quality over price and availability, which may not always be true.

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5. Social Marketing Concept

- Focus:
  Balancing customer satisfaction, company profits, and social well-being.

- Importance:
  Encourages ethical business practices and sustainability.

- Limitations:
  Higher costs due to eco-friendly and socially responsible practice which may reduce short-term profits.

Conclusion

Marketing philosophies have evolved over time, from production-oriented approache to customer- and society-focused strategies. Business must choose an appropriate philosophy based on market conditions, consumer preferences and ethical considerations to ensure long-term success.

3. Selling Concept

- Focus: Aggressive sales tactics and promotions.

- Importance: Useful for unsought products (eg insurance policies life-saving drugs etc).

- Limitations: Short-term focus on sales rather than customer satisfaction leading to low brand loyalty.

4. Marketing Concept

- Focus: Understanding and satisfying customer needs better than competitors

- Importance: Ensure long term customer satisfaction and competitive advantage.

- Limitations: Requires extensive market research, which can be costly and time consuming.

Q2a) As a Marketing Manager, when and why you would embark anlayzing the marketing environment? Discuss by selecting any product or product category of any FMCG or a consumer durables of your choice. Explain what combination of micro and macro environmental analysis that you would consider and why?

b) Discuss the various marketing philosophies that you are familiar with. Highlight their importance and limitations in their evolution process.

<u>Ans2</u> As a Marketing Manager, analying the marketing environment is essential to ensure the success of the product. The timing and the purpose of such an analysis depend on various factors including market trends, competetion, consumer behaviour and regulatory changes.
Typically an analysis should be conducted.

1. Before Launching a Product -
To assess the

market potential and develop a competetive strategy.

2. During Product Life Cycle changes -

To adapt to changing consumer needs and market conditions.

3. When facing Completion -

To evaluate the impact of new competetions or changing strategies of Existing players

4. In response to Economic or Regulatory Changes -

To comply with new regulations or adjust to economic shifts.

5. To Evaluate Marketing Campaign Effectiveness -

To refine strategies and improve marketing ROI

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Ex - Marketing Analysis of a Detergent Brand.

For an FMCG product like a detergent, both micro and macro environmental factors play a crucial role in shopping marketing strategies.

Micro Environmental factors:

These are factors:-

1. Customers: Understanding customer preferences, purchasing behaviour and loyal.

2 Competetiors: Analyzing competing detergents brands such as Surf-Excel.

3 Suppliers: Ensuring a reliable supply chain for raw material

4 Marketing: ~~Evaluating~~ Evaluating the role of retailers and wholesellers in distribution

Macro Environmental factors -

These are the external forces that impact the business indirectly.

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1. Demographic factor - Understanding target audience demographic (age income, family size)

2. Economic factor - Assessing inflation, consumer purchasing power and demand elasticity

3. Technological factors - Innovations in detergent formulations and packaging

4. Political and Legal factors: Compliance with environmental regulations and trade policies.

5. Social and Cultural factors - The growing trend of organic and eco friendly detergents

b) Classification and Definition of Product

A product is anything that is offered to the market to satisfy a need or want. It can be a tangible good, a service or a combination

Classification of Products -

Products are broadly classified into Consumer Products and Industrial Products.

1. Consumer Products:

These products are intended for personal consumption.

a) Convenience Products -
frequently purchased with minimal effort (eg - toothpaste, soap).

b) Shopping Product -
Compared on attribute such as shopping and price.

c) Speciality Product -
Unique products with brand loyalty (eg. luxury watches).

d) Unsought Product -
Product that consumer do not actively seek until needed.

2. Industrial Products.

These are used for business operations and further production.

a) Raw material - Basic inputs for manufacturing (eg cotton crude oil)

b) Capital goods - Long term assets for production (eg machinery tools)

c) Supplies and Services - Operational necessities. (eg. office supplies)

Q 3a) Explain the concept of Product Life Cycle (PLC). Pickup any product/brand of your choice in recent past where marketing mix element have changed during the different stages of the PLC. List out the changes.

b) Discuss the elements of promotion mix. Identify the reasons why companies in the current business environment are of the opinion that there

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there is a felt need and necessity of integrating all the elements of marketing communication mixture with a strategic intent to compete and stay relevant at any given point of time.

Explain with a example. where all the elements of promotion mix communication are integrated. Select and make SWOT analysis and highlight importance of integration.

Ans Product Life Cycle (PLC)

Concept of Product Life Cycle (PLC)

Product Life cycle refers to the stages a product goes through from its introduction in the market to its eventual decline and withdrawal. It helps markets to strategize marketing efforts according to the phase product is in.

The PLC consists of five main stages.

1. Introduction - Product is launched, awareness is created.

2. Growth - Sales rise rapidly; brand acceptance increases

3. Maturity - Sales peak; competition intensifies

4. Saturation - Market becomes crowded; sales growth slows.

5. Decline - Sale fall due to newer alternatives or changing customer preferences.

Ex. Apple iPhone (model X).

Lets take example of Apple iphone X as the product and analyze the changes in the marketing mix (4Ps) during different stages of its PLC.

1. Introduction stage (2017)

Product: Innovative design, face ID, OLED display
Price: Premium pricing
Place: Available in Apple Store.
Promotion: Heavy promotional campaign.

2 Growth Stage:

Product: Software updates, improvements in Camera and performance.
Price: Slight price drop, offers through EMI.
Place: Wider availability including tier 2 cities.
Promotion: Continued ad campaigns focusing on unique features and user experience.

3 Maturity Stage -

Product: No minor changes, software update continue.
Price: Reduced pricing; more discounts during sales.
Place: Wide distribution network.
Promotions: Less aggressive; focused on comparison with other models.

4. Decline Stage -

Product - Heavy discount by Apple.
Price - Heavy discontinued
Place - Limited Stock in select stores
Promotions - Minimal; focus shifts to newer

Element of Promotion Mix

Promotion Mix Elements:

The Promotion Mix is the set of tools that a company uses to communicate with its target audience.
The main elements are:-

1 Advertising - Paid form of non-personal communication (TV, radio, print, digital)

2 Sales Promotion - Short-term incentives (dis, coup)

3 Public Reaction (PR) - Maintaining a positive brand.

4 Personal Selling - Face to Face interactions to it

5 Direct Marketing - Direct communication with it.

6 Digital Marketing - Use of online platform.

Need for Integration of Marketing Communication Mix:

In the current competitive and dynamic market:

- Customers are exposed to messages around multiple platforms.

- Consistency across channels helps build trust and recall

- Fragmented messages lead to confusion and reduce brand impact.

Hence, companies now integrate all marketing communication elements into a unified strategic approach called Integrated Marketing Communication (IMC) to ensure clarity, consistency and maximum impact.

Example-
Share a coke campaign

Use of Promotion Mix Elements.

Advertising: TV commercial and online ads.

Sales Promotion: Bottles with customized names.

PR: Positive media coverage and customer stories

Personal Selling: In-store promotions and kiosks.

SWOT Analysis of Coca-Cola

Strong emotional connection - Not personalized for all cultures

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High customer engagement - Limited availability of custom names

Importance of Integration in this Campaign:

- Consistent messaging across all channels enhanced brand recall.
- Customer engagement increased due to personalization and digital sharing.
- Sales spiked during the campaign proving the effectiveness of integrated communication.

Q4 a) Bring out the major differences and similarities between marketing and services marketing.

With the help of internet and secondary data sources prepare one essay on the reasons for the growth of service sector since 2010 - 2023.

b) Make a visit to any firm / company in your location or you are familiar with where digital marketing has been adopted. Talk to the manager or the concerned person who is in-charge.

of digital marketing activities and collect all the prospects and challenges that are being faced.

Ans 4 Difference and Similarities between Product Marketing and Services Marketing.

Product marketing and services marketing are two distinct branches of marketing, each with its own set of strategies and challenges.

Difference -

1. Tangibility -

- Product marketing: Deals with tangible items that customers can see touch and own
- Service Marketing: Focuses on intangible offerings that cannot be physically possessed.

2. Ownership:-

- Product Marketing: Involves the transfer of ownership from seller to buyer
- Services Marketing: No transfer of Ownership. instead customer experience the service.

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3. Returnability :-

Product Marketing : Products can often be returned or Exchanged.

Service Marketing : Services once rendered, cannot be returned.

4. Separability :-

Product Marketing : Products Exist independently of the producer.

Service Marketing : Services are typically produced and consumed. making inseparable

Similarities

1. Customer - centric Approach -
Both aim to satisfy consumer needs and preferences

2. Marketing Mix -
Both utilize the 4 P's - Product, Price, Place and Promotions

3. Branding -
Establishing a strong brand.

is crucial in both to build trust and faith

b) Digital Marketing Adoption in local firms.

To gain insights into digital marketing practices, consider visiting a local firm in Lucknow that has embraced digital Marketing. Engage with the manager or digital marketing head to discuss

- Prospects:
  - Enhanced online presence and brand awareness.
  - Ability to reach a border audience cost-effectively.
  - Improved customer enagagement through social media and personalized content.

- Challenges:
  - Keeping pace with rapidly evolving digital trends and technologies.
  - Measuring the ROI of digital marketing campaigns.
  - Managing online reputation and addressing negative feedback promptly.

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QUANTITATIVE ANALYSIS FOR MANAGERIAL APPLICATIONS

Q-1 Describe briefly the questionnaire method of collecting primary data. State all the essentials of a good questionnaire.

Ans 1. The questionnaire method is a structured way of collecting primary data by using a set of questions or prompts provided to respondents. This method is widely used in research and data collection, especially for surveys.

Questionnaires can be distributed in various forms, including online surveys, printed forms, or face to face interviews. The purpose of the questionnaire is to gather specific information from large group of

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individuals, allowing researchers to analyze trends, pattern and insight related to the research problem.

Essentials of a good Questionnaire:

A well-designed questionnaire is essential for obtaining reliable, valid and meaningful data. The following are the key essentials of a good questionnaire.

1. Clear Objectives: A good questionnaire is based on clearly defined research objectives. The questions should directly relate to the purpose of study and help in answering the research questions.

2. Simple and Clear Language: The questions should be easy to understand, with simple and straightforward language. Avoid jargons, technical terms, or complex phrases that might confuse respondents.

3. Logical and Organized Structure:
The questions should follow the logical flow, starting with the general questions and moving towards more specific ones. Group related questions together in a systematic manner.

4. Relevance of question:
Only include question that are relevant to the research objectives. Irrelevant or unnecessary questions can lead to confusion and unreliable data.

5. Avoid Ambiguity:
Questions should be clear and unambiguous to ensure that respondents interpret them the same way. Avoid double-barrelled questions (questions that ask about two things at once) and leading questions (questions that suggest a particular answer).

6. Proper Scaling and Response Options:
When using closed-ended questions (eg. multiple choice, Likert scale), ensure that the respons

options are exhaustive (covering all possible answers) and mutually exclusive (no overlap in options).

7. Neutral and Unbiased Questions:

Questions should not lead the respondent towards a particular answer. Avoid using emotionally charged or biased language that may influence the response.

8. Pilot testing:

Before the full-scale survey the questionnaire should be tested on a small sample (pilot test) to identify any problems with the questions structure or the wording.

9. Easy to Analyse:

Ensure that the questionnaire allows for easy data analysis. Closed-ended questions with fixed response options are easier to analyse quantitatively, while open ended questions may provide

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qualitative insights.

10. Anonymity and Confidentiality: If applicable, ensure that the questionnaire assures respondents to the confidentiality of their responses, especially if sensitive data is being collected.

A well constructed questionnaire enhances the reliability and validity of the data collected, leading to more meaningful and actionable insights.

Q-2 Importance of measuring variability for managerial decision making.

Ans2: Measuring variability is crucial for effective managerial decision-making because it provides insights into the consistency, risk and predictability of data, which are key factors when making informed business decisions.

Variability refers to the extent to which data point in a set differs from the average (mean) or from each other. Common measures of variablity include range, variance and standard deviation.

Here is why measuring variablity is important for managerial decision making.

1. Risk Assessment and Management:

Variablity is a key indication of risk. High variability means that outcomes or performance measures are more unpredictable; while low variability means that consistent performance. By measuring variablity managers can assess the risk involved in a particular object or project, investment or potential and operational decisions. Understanding risk helps in making better informed choices that balances potential rewards against the possibility of negative outcomes

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2. Perfomance Monitoring :- In business, measuring variability helps managers track the performance of employees, products or series. For example - If a company sales figures show high variability, it indicates the inconsistent sales perfomance indicating managers to investigate the reasons behind the fluctuations. (eg. seasonality, marketing effetiveness, or customer demand). This allows manager to address perfomance issues and implement corrective actions.

3. Forecasting and Planning: Accurate forecasting is a key to sound decision making. By understanding the variability in historical data (e.g. sales, production levels, or demands), managers can better predict future trends. Measuring variability helps managers estimate the range of possible outcomes, which leads to more realistic plans and strategies. For instance - understanding

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the variability in customer demand can guide inventory management and production planning, reducing the likelihood of stockouts or overproduction.

4. Budgeting and Cost Control:

Variability in costs, such as production costs or operating expenses, can have a significant impact on profitability. Managers can use measures of variability to identify the areas where cost are unpredictable and uncontrollable. This information helps them implement cost-control measures, allocate resource more efficiently, and ensure that business stays within budgetary constraints.

5. Setting Benchmark and Targets:

Variability also helps in setting performance benchmarks and targets. for eg- if a company's past performance shows low variability in product delivery times, the manger might set up an aggressive target for future delivery times. On the other hand, if variability is high, manges might set more realistic or flexible targets to account for uncertainity and variability in the process.

6. Strategic Decision - Making:
Variability is crucial when considering strategic business decisions such as entering new markets, launching new products, or making significant investments.
Understanding the variability in factors such as market trends, customer preferences, and competition behaviours helps manages make strategic decisions that account for uncertainity and future changes in the business environment.

7. Customer Satisfaction and Quality Control:

For business focused on customer satisfaction

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and quality control, measuring variability is essential to monitor the consistency of product or service quality. High variability in product defects or customer complaints can signal quality control issues, prompting management to take corrective actions. By understanding and reducing variability, companies can improve customer satisfaction and maintain a competetive edge.

6. Investment Decisions:

Investors and managers need to understand the volatility or variability in financial returns when making investment decisions. The standard deviation of returns, for example, is a measure of financial risk. A higher standard devation indicates more variability in returns, which may suggest a higher level of risk. Manages use this information to make investment choice that aligns which companys risk toralent and financial objective.

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Q3. An investment consultant predicts that the odds against the price of a certain stock will go up during the next week are 2:1. and the odds in favour of the price remaining the same are 1:3. What is the probability that the price of the stock will go down during the next week?.

Ans 3. We are given following,

- Odds agirst the price going up - 2:1
- Odds in favour of the price same - 1:3

Odds -

Odds are the way of representing the likelihood of an event occuring. When we say 'odds against," we are referring to the ratio of the probability that the event will not happen to the probability that it will happen. Conversely, "odds in favour" means the ratio of the probability that the event will happen to the probability that it will not happen.

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- Odds against event A occuring $= \frac{P(A) \text{ not}}{P(A) \text{ occuring}}$

- Odds in favor of event A $= \frac{P(A) \text{ occuring}}{P(A) \text{ not occuring}}$.

Converting odds to Probabilities :

a) Odds against the price going up (2:1)

$$\Rightarrow \frac{P(\text{not up})}{P(\text{up})} = 2.$$

$$\Rightarrow P(\text{not up}) = 2 \times P(\text{up})$$

Since, P(not up) includes both the probability of the price staying the same.

$$P(\text{not up}) = P(\text{same}) + P(\text{down})$$

So, $P(\text{same}) + P(\text{down}) = 2 \times P(\text{up})$

b) Odds in favour of the price (1:3)

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$$\frac{P(\text{same})}{P(\text{not same})} = \frac{1}{3}$$

$$\Rightarrow \quad P(\text{same}) = \frac{1}{3} \times P(\text{not same})$$

Since, price will go up, remain the same or go down, we know that:

$$P(\text{not same}) = P(\text{up}) + P(\text{down})$$

Substituting this,

$$P(\text{same}) = \frac{1}{3} \times \left(P(\text{up}) + P(\text{down})\right)$$

Setting the system of equations

Now we have two eq.

1. $P(\text{same}) + P(\text{down}) = 2 \times P(\text{up})$
2. $P(\text{same}) = 1/3 \left(P(\text{up}) + P(\text{down})\right)$

Solving the system of Equations

$$P(\text{same}) = 1/3 \times \left(P(\text{up}) + P(\text{down})\right)$$

$$1/3 \times \left(P(\text{up}) + P(\text{down})\right) + P(\text{down}) = 2 \times P(\text{up})$$

$$= \frac{1}{3} \times P(\text{up}) + \left(\frac{1}{3} + 1\right) \times P(\text{down}) = 2 \times P(\text{up})$$

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$$P(up) + 4 \times P(down) = 6 \times P(up)$$
$$= 4 \times P(down) = 5 \times P(up)$$

So,
$$P(down) = \frac{5}{4} \times P(up)$$

$$P(same) = 3/4 \times P(up)$$

Final step : Use Total Probability

We know that the sum of all prob must be 1.

$$P(up) + P(same) + P(down) = 1.$$

Substitute,

$$P(up) + 3/4 \times P(up) + \frac{5}{4} P(up) = 1$$

$$P(up) = 1/3$$

$$P(same) = 3/4 \times 1/3 = 1/4$$

$$P(down) = 5/4 \times 1/3 = 5/12.$$

Conclusion :

$$\boxed{P(down) = 5/12.}$$

Q4. In practise, we find situations where it is not possible to make any probability assessment. What criterion can be used in decision-making situations where the probabilities of outcomes are unknown?

Ans4: In decision-making situations where the probabilities of outcomes are unknown, the criterion of 'maximin' or 'minimax regret' is commonly used.

1. Maximin Criterion (also called as "Wald's Maximin Rule")

- This criterion focuses on the worst-case scenario. It suggests that a decision-maker should select the alternative that has the best worst-case outcome.

- Essentially, it involves:

  - Identify the worst possible outcome for each alternative.
  - Choosing the alternative with the highest of these worst outcomes

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This approch is used when the decesion maker is risk-averse and prefers to avoid the worst-case secenarios.

2. Minimax Regret Criteria :

- The minimax regret approch focuses on minimizing the potential regret that could be felt after making a decesion. The "regret" is defined as the difference between the payoff from the best action and the payoff from the chosen action.

- The steps are:
  - For each possible outcome, calculate the regret for each alternative (i.e., the difference between the best possible outcome and the actual outcome for that alternative)

- Then, for each alternative, find the maximum regret.

- The decesion-maker chooses the alternative with the smallest maximum regret.

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- This approach is used when the decision-makers is concerned with the smallest maximum regret

3. Laplace Criterion (in some cases, used when probabilities are truly unknown)

- In situations where probabilities of outcomes are completely unknown, some decision-makers assume that all possible outcomes are equally likely. This is known as Laplace Criterion

- Under this criterion, the decision-makers calculates the expected value for each alternative by assuming equal probability for outcome, and then chooses the alternative with the highest expected value.

Conclusion :

- Maximin and Minimax Regret are common criteria used in decision making under uncertainty

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- The Laplace Criteria is used when there is an assumption of equal likelihood for all outcomes.

Q-5 A purchase manager knows that the hardness of casting from any supplier is normally distributed with a mean of 20.25 and SD of 2.5. He picks up 100 samples of castings from any supplier who claims that his castings have heavier hardness and finds the mean hardness as 20.50. Test whether the claim of the supplier is tenable solution for assignment question.

Ans 5. To solve this hypothesis test problem, we need to test whether the claim made by the supplier that their castings have heaver hardness (greater mean hardness) is statistically supported by sample data.

We will use one-sample Z-test for

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this purpose.

Given data :

- Population mean (μ) $= 20.25$
- Population standard deviation (σ) $= 2.5$.
- Sample mean ($\bar{x}$) $= 20.~~2~~50$
- Sample size (n) $= 100$.

Hypothesis :

- Null Hypothesis (H_0) : The mean hardness of casting is 20.25 i.e $\mu = 20.25$
- Alternative Hypothesis (H_1) : The mean hardness of castings is greater than 20.25, i.e $\mu > 20.25$ (this is one tailed test).

Step 1: Calculate the Z - score

The formula for the Z - score in one sample Z test is:

$$Z = \frac{\bar{x} - \mu}{\frac{\sigma}{\sqrt{n}}}$$

Where,

- $\bar{x}$ is the mean
- μ is the population mean
- σ is the population deviation
- n is the sample size

Substititing the values ~~to~~ formula -

$$Z = \frac{20.50 - 20.25}{\frac{2.5}{\sqrt{100}}}$$

$$Z = \frac{0.25}{\frac{2.5}{10}} = \frac{0.25}{0.25} = 1$$

Step 2 : Determine the Critical Z-value

For a one tailed test at a significance level of $\alpha = 0.05$, we find the critical Z-value from the Z-table.

The critical value of one tailed

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test at $\alpha = 0.05$ is

$$Z \text{ critical} = 1.645$$

Step 7: Compare the Z score with the critical value.

- If the calculated Z-value is greater than the critical Z-value, we reject the null hypothesis.
- If calculated Z-value is less than or equal to the critical Z-value, we fail to reject the null hypothesis

Since the calculated Z-value (1) is less than the critical value (1.645), we fail to reject the null hypothesis.

At a significance level of 0.05, there is not enough evidence to support the claim that the castings have a higher mean hardness than 20.25. Therefore, the claim of the supplier is not tenable based on the sample data.