



IIBA

Exam Questions CBDA

Certification in Business Data Analytics (IIBA - CBDA)

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NEW QUESTION 1

- (Topic 1)

Which attributes from the Order entity will need to be normalized to avoid redundancies?

- . OrderId
- . OrderDate
- . ItemId
- . ItemName
- . Quantity
- . ItemPrice

- A. OrderDate ItemPrice
- B. ItemName ItemPrice
- C. OrderDate ItemName
- D. Item Name Quantity

Answer: B

Explanation:

The attributes ItemName and ItemPrice need to be normalized to avoid redundancies because they depend on the attribute ItemId, which is not part of the primary key of the Order entity. This is a case of partial dependency, which violates the second normal form (2NF) of database normalization. To achieve 2NF, the Order entity should be split into two entities: Order and Item, where Item contains the attributes ItemId, ItemName, and ItemPrice, and Order contains the attributes OrderId, OrderDate, ItemId, and Quantity. This way, the ItemName and ItemPrice are stored only once for each ItemId, and the Order entity references them through a foreign key.

12 References: 1: Balancing Data Integrity and Performance: Normalization vs ?? 2: Normalization Process in DBMS - GeeksforGeeks

NEW QUESTION 2

- (Topic 1)

The analytics team has been asked to assess sales data from their company's website with the hopes of providing insights to help increase online sales. It's the first time the team is looking at this specific data and they are concerned about the quality of data that has been captured. They decide to use the following approach as the next step:

- A. Trend Analysis
- B. Classification analysis
- C. Data Analysis
- D. Exploratory analysis

Answer: D

Explanation:

Exploratory analysis is the approach that the analytics team should use as the next step, because it is a technique that allows them to examine the quality, structure, and characteristics of the data, without making any assumptions or hypotheses. Exploratory analysis can help the team identify any issues or anomalies in the data, such as missing values, outliers, or errors, and decide how to handle them. Exploratory analysis can also help the team discover any patterns, trends, or relationships in the data, and generate new research questions or hypotheses for further analysis. References:

- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 3: Analyze Data
- Understanding the Guide to Business Data Analytics, page 16
- CERTIFICATION IN BUSINESS DATA ANALYTICS HANDBOOK - IIBA®, page 8, CBDA Exam Sample Questions and Self-Assessment, Question 8

NEW QUESTION 3

- (Topic 1)

The analytics team has established two equally strong potential recommendations which will deliver the desired outcomes with similar benefits to be derived from each one. On the surface there is no discernable difference in costs or schedule for either option. To help the analytics team reach a recommendation the business analysis professional recommends the team:

- A. Complete market research
- B. Assess risks for each option
- C. Vote to choose the recommendation
- D. Seek management guidance

Answer: B

Explanation:

Assessing risks for each option is the recommendation that the business analysis professional should make to the analytics team, because it is a technique that involves identifying, analyzing, and evaluating the potential positive or negative impacts of each option on the project, the organization, or the stakeholders.

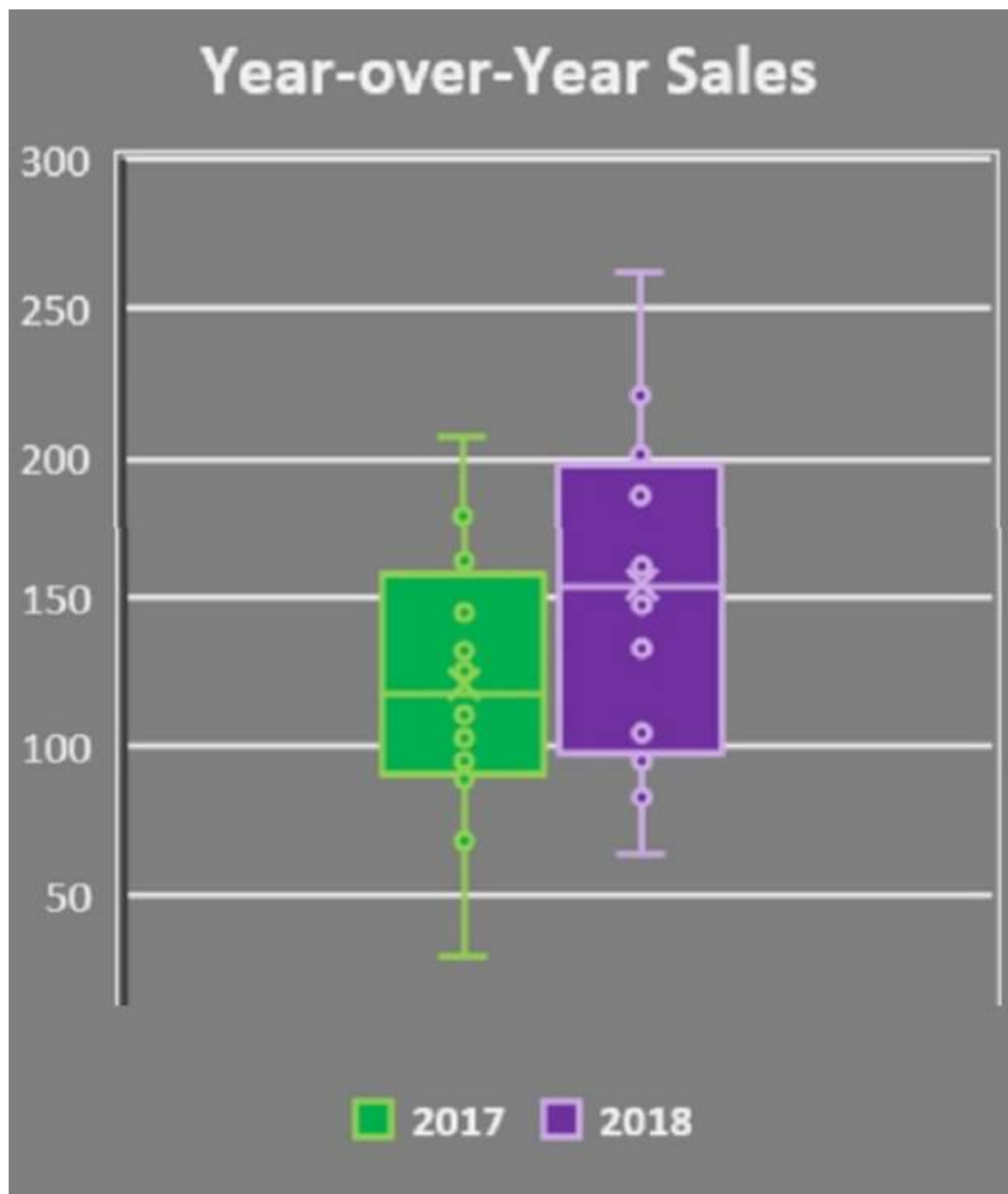
Assessing risks can help the team compare the pros and cons of each option, and determine which one has the highest expected value or the lowest expected loss. Assessing risks can also help the team prepare contingency plans or mitigation strategies for the chosen option, and communicate the rationale and assumptions behind their recommendation. References:

- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 5: Use Results to Influence Business Decision Making
- Understanding the Guide to Business Data Analytics, page 9
- CERTIFICATION IN BUSINESS DATA ANALYTICS HANDBOOK - IIBA®, page 8, CBDA Exam Sample Questions and Self-Assessment, Question 12

NEW QUESTION 4

- (Topic 1)

A software company launched a new product in late 2016. The product manager is reviewing a Box and Whisker plot used to compare year-over-year sales, from 2017 to 2018. What is the conclusion he can make from this chart?



- A. 2017 minimum and maximum sales are higher than 2018, and the 2017 median result is higher than the 2018 median result
- B. 2017 minimum and maximum sales are higher than 2018, but the 2017 median result is lower than 2018 1st quartile result
- C. 2018 minimum and maximum sales are higher than 2017, and the 2018 quartile results are higher than 2017 quartile results
- D. 2018 minimum and maximum sales are higher than 2017, and the 2018 1st quartile is higher than 2017 median result

Answer: D

NEW QUESTION 5

- (Topic 1)

The analytics team has been asked to determine if the organization should launch their highest revenue generating product into the North American market. To date, this has only been available in Eastern Europe. To answer this, the team formulates several research questions, including:

- A. What product launch related costs can we expect?
- B. How much revenue does the product generate in Eastern Europe?
- C. Why does management need to know this?
- D. Do existing customers really like the product?

Answer: D

Explanation:

One of the steps in identifying the research questions for business data analytics is to assess the feasibility and desirability of the proposed solution or change¹. This involves understanding the needs, preferences, and satisfaction of the existing and potential customers. Therefore, asking whether the existing customers really like the product is a relevant research question for the analytics team. References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 22.

NEW QUESTION 6

- (Topic 1)

The results for a certification exam were revealed in percentage and percentile. The results for one of the attendees was: 75%, 90th percentile. What is the value in sharing the percentile score?

- A. The percentile score provides value by assessing the attendee's score against the average score for that exam
- B. While the exam score is an objective score, the percentile is a relative score that assesses the attendee's score against the highest possible score
- C. By ranking, it provided additional insight on how the attendee performed in comparison to other attendees
- D. The percentile score does not add any additional value in assessing the attendee's performance

Answer: C

Explanation:

The percentile score provides value by ranking the attendee's score among all the scores of the exam takers. A percentile score of 90 means that the attendee scored higher than 90% of the exam takers, and only 10% scored higher than the attendee. This gives a relative measure of how the attendee performed in comparison to other attendees, and how competitive or exceptional the score is. The percentile score does not depend on the average or the highest possible score of the exam, but only on the distribution of the scores of the exam takers. References:

- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 4: Interpret and Report Results
- Understanding the Guide to Business Data Analytics, page 9
- What is a Percentile? - Statistics By Jim

NEW QUESTION 7

- (Topic 1)

A job satisfaction survey is being developed. Half of the employees will be asked the question "Do you enjoy working in your workplace?" The other half will be asked "Do you like the current work benefits?". The business analyst raises concern over the survey. What is concerning to the business analyst?

- A. Precision
- B. Reproducibility
- C. Reliability
- D. Validity

Answer: D

Explanation:

The business analyst is concerned about the validity of the survey. Validity is the extent to which a survey measures what it intends to measure. In this case, the survey is supposed to measure job satisfaction, but the two questions asked to different groups of employees are not equivalent or relevant to this construct. The question "Do you enjoy working in your workplace?" is more directly related to job satisfaction than the question "Do you like the current work benefits?". The latter question may capture only one aspect of job satisfaction, and may not reflect the overall level of contentment or happiness with the job. Therefore, the survey results may not be valid or accurate in measuring job satisfaction. References: 1: Survey and questionnaires in business analysis - The Functional BA 2: Job Satisfaction Survey - Paul Spector

NEW QUESTION 8

- (Topic 1)

Operation managers are concerned about the increasing attrition rates in the call center. A series of interviews is being conducted with call center agents to collect information to better understand the problem. Interviewees will ask open and closed ended questions that are both quantitative and qualitative. Which of the following is considered a qualitative open-ended question?

- A. How does call volume contribute to job burnout?
- B. Would morale improve if you could work 2 days per week from home?
- C. How many calls on average do you service in an hour?
- D. Do you receive more calls on Mondays or Fridays?

Answer: A

Explanation:

A qualitative open-ended question is a question that allows the respondent to express their thoughts, feelings, or opinions in their own words, without being constrained by predefined options or categories. A qualitative open-ended question can help the interviewer explore the underlying reasons, motivations, or perceptions of the respondent. Option A is a qualitative open-ended question, because it asks the respondent to explain how call volume affects their job satisfaction and well-being, which may vary from person to person and require elaboration. Options B, C, and D are not qualitative open-ended questions, because they ask the respondent to choose between two alternatives (B and D) or provide a numerical value (C), which are quantitative and closed-ended responses. References:

- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 2: Source Data
- Understanding the Guide to Business Data Analytics, page 14
- CERTIFICATION IN BUSINESS DATA ANALYTICS HANDBOOK - IIBA®, page 8, CBDA Exam Sample Questions and Self-Assessment, Question 9

NEW QUESTION 9

- (Topic 1)

While creating a dataset for analysis, the analyst reviews the data collected and finds a large percentage of records are missing values. Which activity would the analyst perform in order to use this dataset?

- A. Clustering
- B. Scale validation
- C. Weighting
- D. Factor analysis

Answer: C

Explanation:

Weighting is a technique that assigns different values or weights to different records or variables in a dataset, based on their importance or relevance. Weighting can be used to handle missing values by giving them a lower weight or imputing them with a weighted average of other values. Weighting can also help to adjust for sampling bias or non-response bias in the data collection process. References:

- Understanding the Guide to Business Data Analytics, page 16
- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 3: Analyze Data
- CERTIFICATION IN BUSINESS DATA ANALYTICS HANDBOOK - IIBA®, page 8, CBDA Exam Sample Questions and Self-Assessment, Question 4

NEW QUESTION 10

- (Topic 1)

An insurance company has seen an upward trend in winter-related accidents over the past three years. The company has just completed an analytics study to better understand the primary reasons for these accidents and assess how many of the drivers were using winter tires. This analysis will help the company decide how to move forward with drivers not taking precautionary measures during winter. What type of analysis will help in determining the primary reasons and percentage of those drivers with winter tires?

- A. Prescriptive
- B. Descriptive and Predictive
- C. Descriptive
- D. Descriptive and Diagnostic

Answer: D

Explanation:

Descriptive analytics is a type of analytics that summarizes and visualizes the data to provide an overview of what has happened or is happening, such as the trend of winter- related accidents over the past three years, or the percentage of drivers using winter tires¹². Diagnostic analytics is a type of analytics that explores and analyzes the data to understand why something has happened or is happening, such as the primary reasons for these accidents, or the factors that influence the drivers' decisions¹³. To answer the question, both descriptive and diagnostic analytics would be needed to provide the relevant information and insights for the company. References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 182: Business Analytics: Data Analysis & Decision Making, S. Christian Albright and Wayne L. Winston, 2015, p. 53: Data Science for Business, Foster Provost and Tom Fawcett, 2013, p. 13.

NEW QUESTION 10

- (Topic 1)

An analyst at a bank is trying to identify research questions for an analytical study on top customer issues across branches. During an interview with a branch manager, the analyst asks the manager what their top customer concerns are relating to this branch?

After the manager's reply, the analyst asks a follow up question on how their top customer concerns compare against the top customer concerns across all branches? Was the analyst's follow-up question valid?

- A. No, there is no value comparing the results of a single branch with results across all branches
- B. Yes, it builds on the previous question and allows the analyst to identify branch-specific concerns
- C. No, the question is not valid in this particular scenario
- D. Yes, only for the purpose of ensuring that the manager is aware of the company-wide reports

Answer: B

Explanation:

The analyst's follow-up question is valid because it helps to refine the scope and context of the research questions for the analytical study. By comparing the top customer concerns across branches, the analyst can identify the common and unique issues that affect customer satisfaction and loyalty. This can also help to prioritize the most critical or urgent problems that need to be addressed by the bank¹². References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 212: Business Analysis for Practitioners: A Practice Guide, PMI, 2015, p. 43.

NEW QUESTION 13

- (Topic 1)

The analytics team is assessing the results of their analysis. They are surprised to find that their data indicates two events seem to be strongly related even though the general belief in the organization is that they are independent of each other. Knowing that this information will be used for decision making, they are concerned about presenting this data. At an impasse, the business analysis professional reminds them that the data can be presented as long as the team has:

- A. Review the results with management ahead of time and highlight any potential risk of using this data
- B. Confidence that the correlation will reliably occur in the future and the risk of acting on this is low
- C. Followed all rules for data analysis endorsed as organizational standards so the risk of acting on this is low
- D. The ability to rerun the data analysis and the results are the same thereby minimizing the risk of acting on this

Answer: D

Explanation:

The ability to rerun the data analysis and the results are the same is the condition that the team should have before presenting the data, because it is a technique that ensures the validity, reliability, and reproducibility of the data analysis. By rerunning the data analysis, the team can verify that the results are consistent and not affected by random errors, biases, or anomalies. The team can also confirm that the data analysis process is well- documented, transparent, and traceable, and that the results can be replicated by other analysts or stakeholders. This can minimize the risk of acting on the data, and increase the confidence and trust in the data analysis. References:

- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 4: Interpret and Report Results
- Understanding the Guide to Business Data Analytics, page 9
- Business Data Analytics (IIBA®-CBDA Exam preparation) | Udemy, Section 4: Interpret and Report Results, Lecture 20: Data Validation and Verification

NEW QUESTION 18

- (Topic 1)

A new dataset describing employee salaries is received by a company. A colleague wonders whether a variable follows a Gaussian distribution. Which of the following plots would demonstrate this?

- A. Normal probability plot
- B. Scatterplot
- C. Boxplot
- D. Lowess curve

Answer: A

Explanation:

A normal probability plot is a graphical technique that can be used to check if a variable follows a Gaussian distribution. It plots the observed values of the variable against the expected values under the normal distribution. If the variable is normally distributed, the points should form a straight line. A scatterplot, a boxplot, and a lowess curve are not suitable for testing normality, as they do not compare the observed values with the theoretical values of the normal distribution. <https://www.graphpad.com/support/faq/testing-data-for-normal-distribution/>

NEW QUESTION 19

- (Topic 1)

An organization's customers are categorized based on the amount of purchases completed over the last 12 months. The analytics team would like to ensure the

accuracy of their survey results and decide to randomly select 500 customers to participate in a survey from this large pool of customers. This is an example of:

- A. Stratified sampling
- B. Quota sampling
- C. Purposive sampling
- D. Snowball sampling

Answer: A

Explanation:

Stratified sampling is a technique that divides the population into homogeneous subgroups (strata) based on a relevant characteristic, such as the amount of purchases, and then randomly selects a proportional number of elements from each subgroup to form the sample. Stratified sampling ensures that the sample is representative of the population and reduces the sampling error and bias¹². References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 312: Statistics for Business and Economics, David R. Anderson et al., 2014, p. 262.

NEW QUESTION 24

- (Topic 1)

As the team discusses how to utilize the results of their data analysis to put forth a business recommendation, an analyst on the team voices concern over the current organizational culture presenting a roadblock to their ability to influence business decision making. Which of the following would be a justifiable concern at this stage of the team's efforts?

- A. Difficulty bringing business stakeholders to a shared understanding about value when sharing data assets across business domains
- B. Changing the mindsets of business stakeholders to trust insights gleaned from data over experience and intuition
- C. Applying a myopic view of data and establishing data silos which create roadblocks to exploring available data sources
- D. Finding data that creates value creating difficulties, as not all data helps a business make better decisions

Answer: B

Explanation:

A justifiable concern at this stage of the team's efforts is changing the mindsets of business stakeholders to trust insights gleaned from data over experience and intuition. This is because some stakeholders may have a strong attachment to their own opinions or beliefs, and may resist or ignore data that contradicts them. This can create a barrier to data-driven decision making, which requires a culture of curiosity, openness, and evidence-based reasoning. The team needs to communicate the value and validity of their data analysis, and persuade the stakeholders to adopt a data-driven mindset¹². References: 1: Use Data to Accelerate Your Business Strategy 2: Data-Driven Decision Making: A Step-by-Step Guide

NEW QUESTION 25

- (Topic 1)

The analytics team is identifying research questions to address a business problem. The business analysis professional reminds the team that the most important dimension to consider is the:

- A. Sources of data
- B. Quality of the data
- C. Timeframe of analysis
- D. Measurement scale

Answer: B

Explanation:

The quality of the data is the most important dimension to consider when identifying research questions, as it affects the validity, reliability, and accuracy of the analysis and the results. Data quality refers to the degree to which the data meets the requirements and expectations of the stakeholders and the purpose of the analysis¹². Poor data quality can lead to erroneous conclusions, ineffective decisions, and wasted resources³. References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 282: Data Quality Assessment, Arkady Maydanchik, 2007, p. 33: Data Quality: The Field Guide, Thomas C. Redman, 2001, p. 1.

NEW QUESTION 26

- (Topic 1)

Based on the financial analysis that's been completed by the analytics team, the business analysis professional reminds the team that the most financially feasible option is the one with the:

- A. Highest ROI, highest present value, lowest NPV and highest payback period
- B. Highest ROI, highest present value, highest NPV, and lowest payback period
- C. Highest ROI, lowest present value, lowest NPV and highest payback period
- D. Highest ROI, lowest present value, highest NPV and lowest payback period

Answer: B

Explanation:

The most financially feasible option is the one that maximizes the return on investment (ROI), the present value (PV), and the net present value (NPV), and minimizes the payback period. ROI measures the annual percentage return of an investment, PV measures the current value of future cash flows, NPV measures the difference between the PV and the initial cost of an investment, and payback period measures the time it takes to recover the initial cost of an investment. A higher ROI, PV, and NPV indicate a more profitable and valuable investment, while a lower payback period indicates a faster recovery and lower risk of an investment

NEW QUESTION 30

- (Topic 1)

After analyzing sales data, the analytics team finds that the older the customer, the more expensive the neckties purchased. The team felt this was a breakthrough insight but on closer analysis realized that other factors could account for this relationship. This is a clear indication that:

- A. Correlation between variables implies causation
- B. Causation has no relationship with correlation

- C. Causation between variables does not imply correlation
- D. Correlation between variables does not imply causation

Answer: D

Explanation:

The analytics team found a correlation between the age of the customer and the price of the neckties purchased, meaning that as one variable changes, the other tends to change in the same direction. However, this correlation does not imply causation, meaning that one variable does not necessarily cause the other to change. There could be other factors, such as income, preference, or quality, that affect both variables and create a spurious relationship. Therefore, the team realized that they need to investigate further to determine if there is a causal link between the variables, or if the correlation is coincidental¹² References: 1: Correlation vs. Causation | Difference, Designs & Examples - Scribbr 2: Correlation vs Causation: Understanding the Differences - Statistics By Jim

NEW QUESTION 34

- (Topic 1)

A manufacturing company, specializing in turf maintenance equipment, has recently seen a decline in their lawn mower sales. As a result, the analytics team is asked to review the latest customer satisfaction survey results. An analyst on this team creates a report for senior management with attractive visuals, supported by the KPI results. Upon reviewing the report, the analyst's manager mentions that the report is missing the narrative. What does this mean?

- A. The data tables that support the visuals and help answer questions
- B. A narrative that supports insights with additional context and draws correlations
- C. Notes on assumptions and unavailable data for analysis
- D. Commentary around why each graphic was selected to provide additional context

Answer: B

Explanation:

A narrative is a written or spoken explanation of the data analysis results that tells a story with the data, provides additional context and background information, highlights the key insights and findings, and draws correlations and implications for the decision makers¹². The report is missing the narrative, meaning that it does not communicate the meaning and value of the data analysis effectively, and it leaves the interpretation and action to the senior management without any guidance or recommendation³⁴. References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 672: Storytelling with Data, Cole Nussbaumer Knaflic, 2015, p. 93: Data Storytelling: The Essential Data Science Skill Everyone Needs, Brent Dykes, 2016, 14: The Power of Data Storytelling, Harvard Business Review, 2018, 2.

NEW QUESTION 38

- (Topic 1)

Insights based on the data collected indicate that a multi-national company could increase its sales of a mature product by reducing its price by 20% which would result in increased revenues of 2% over a 6-month period. The team recommends this as an appropriate goal for its organization. This is considered a good goal because:

- A. It meets all the criteria for a well-defined objective
- B. The organization can derive additional revenue from the product
- C. It indicates that the company does not have to incur costs associated with retiring this product
- D. Management will be pleased that the mature product can still contribute to revenue

Answer: A

Explanation:

A well-defined objective is one that is specific, measurable, achievable, relevant, and time- bound (SMART)¹. The goal of increasing sales of a mature product by reducing its price by 20% which would result in increased revenues of 2% over a 6-month period meets all these criteria, as it clearly states what the desired outcome is, how it will be measured, whether it is realistic and attainable, how it aligns with the organization's strategy, and when it will be achieved². References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 192: SMART Goals: How to Make Your Goals Achievable, MindTools, 2021, 1.

NEW QUESTION 39

- (Topic 1)

An analytics system is being developed by relying entirely on research questions that are framed using the results from benchmarking. Which research question is being asked?

- A. Which customers provide the greatest profit to the company?
- B. How efficient is the company compared to its competitors?
- C. Will more profit be made if we increase or decrease our sales price?
- D. Which employees are we in danger of losing?

Answer: B

Explanation:

Benchmarking is a method of comparing the performance of a business with others in the same industry or with industry standards¹². It helps to identify areas of improvement and best practices for superior performance³⁴. A research question that is framed using the results from benchmarking would focus on how the company compares to its competitors or to the industry average on a specific metric or process. For example, how efficient is the company compared to its competitors? This question would require the company to measure its efficiency using a relevant indicator, such as cost per unit, time per task, or output per employee, and compare it to the same indicator for its competitors. This would help the company to identify its strengths and weaknesses, and to find ways to improve its efficiency and gain a competitive advantage

NEW QUESTION 42

- (Topic 1)

What is the relationship between a Customer entity and an Order entity, where a customer entry will be present in the Customer entity only if they have made an order?

- A. one-to-many
- B. many-to-many

- C. one-to-one
- D. zero-to-one

Answer: D

Explanation:

The relationship between a Customer entity and an Order entity, where a customer entry will be present in the Customer entity only if they have made an order, is a zero-to-one relationship. This means that for each record in the Order entity, there can be either zero or one record in the Customer entity that is related to it. This implies that the Order entity is optional for the Customer entity, and the Customer entity is mandatory for the Order entity12 References: 1: A Guide to the Entity Relationship Diagram (ERD) - Database Star 2: Developing an Application - Oracle

NEW QUESTION 44

- (Topic 1)

An analyst has just completed building a data model that shows the table structures including table names, table relationships with primary and foreign keys and column names with respective data types. What type of data model has the analyst just built?

- A. Physical
- B. Hierarchical
- C. Conceptual
- D. Logical

Answer: A

Explanation:

A physical data model is the most detailed and specific type of data model, which shows how the data is stored, accessed, and manipulated in the database. It includes the table structures, column names, data types, primary and foreign keys, constraints, indexes, and other physical attributes of the data12. References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 542: Data Modeling Essentials, Graeme Simsion and Graham Witt, 2005, p. 15.

NEW QUESTION 48

- (Topic 1)

A Data Dictionary is being developed for an employee database. When reviewing the data dictionary, the analyst recommends adding another primitive data element. Which element would be suggested?

- A. Street address
- B. First name
- C. Customer name
- D. Work phone number

Answer: A

Explanation:

A street address is a primitive data element, because it is a basic unit of data that cannot be further decomposed into smaller components. A primitive data element has a distinct name, definition, format, and value domain. A street address can be used to identify the location of an employee or a customer, and it can be stored as a string or a combination of numbers and characters. Options B, C, and D are not primitive data elements, because they can be further broken down into smaller components. For example, a first name can be divided into a prefix, a given name, and a suffix. A customer name can be composed of a first name and a last name. A work phone number can be split into a country code, an area code, and a local number. References:

- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 2: Source Data
- Business analysis data dictionary – The Functional BA
- CERTIFICATION IN BUSINESS DATA ANALYTICS HANDBOOK - IIBA®, page 8, CBDA Exam Sample Questions and Self-Assessment, Question 15

NEW QUESTION 49

- (Topic 1)

Based on the results of a recently completed analytics initiative, the Human Resource department for a major department store implemented a change to its hiring practice to address the attrition rates of its sales associates. The new policy stated that candidates applying for sales positions must possess at least 3 years of relevant sales experience to be considered. After implementing the change, attrition rates are 10% higher and management is frustrated. Which of the following could result in this outcome?

- A. The results of analysis have been incorrectly interpreted
- B. Sales experience is not a relevant skill
- C. Analytics is not helpful given this situation
- D. The change proposed is not aligned to company strategy

Answer: D

Explanation:

The change proposed is not aligned to company strategy, because it may not address the root cause of the attrition problem, or it may conflict with other organizational goals or values. For example, the change may reduce the pool of qualified candidates, increase the hiring costs, or lower the diversity or customer satisfaction of the sales team. The change may also ignore other factors that influence the attrition rates, such as compensation, training, feedback, or recognition. Therefore, the change may not achieve the desired outcome of reducing attrition, and may even worsen it. References:

- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 5: Use Results to Influence Business Decision Making
- Understanding the Guide to Business Data Analytics, page 9
- CERTIFICATION IN BUSINESS DATA ANALYTICS HANDBOOK - IIBA®, page 8, CBDA Exam Sample Questions and Self-Assessment, Question 13

NEW QUESTION 51

- (Topic 1)

A call center has requested to review their sales conversion data for the month. The analyst working on this request is trying to identify the chart that will effectively present the data, which includes: the number of leads, the number of calls made, the number of calls completed, the number of customers interested and the number of sales. What chart should the analyst use to show the values across each stage of the pipeline?

- A. Pie chart
- B. Funnel chart
- C. Bar chart
- D. Bullet chart

Answer: B

Explanation:

A funnel chart is a type of chart that shows the values of different stages of a process, such as a sales pipeline, where each stage represents a subset of the previous one. A funnel chart is useful for showing the conversion rate, the drop-off rate, and the potential revenue or profit at each stage¹². A funnel chart would be an effective way to present the data requested by the call center, as it would show the number of leads, calls, customers, and sales, as well as the percentage of change between each stage. References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 662: Data Visualization: A Practical Introduction, Kieran Healy, 2018, p. 233.

NEW QUESTION 55

- (Topic 1)

An online retailer of men's athletic apparel is seeking to become the market leader in the industry. To deliver on this strategy, the analytics team continuously collects data on the prices of competitor products and uses this information to adjust the retailer's prices. What type of analytics is the retailer using to maintain their pricing structure?

- A. Descriptive
- B. Diagnostic
- C. Predictive
- D. Prescriptive

Answer: D

Explanation:

Prescriptive analytics is the type of analytics that the retailer is using to maintain their pricing structure, because it is a technique that uses data and models to recommend the best course of action for a given situation. Prescriptive analytics can help the retailer optimize their prices based on the data collected from the competitors, the market conditions, and the customer preferences, and thus achieve their strategic goal of becoming the market leader. References:

- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 3: Analyze Data
- Understanding the Guide to Business Data Analytics, page 17
- CERTIFICATION IN BUSINESS DATA ANALYTICS HANDBOOK - IIBA®, page 8, CBDA Exam Sample Questions and Self-Assessment, Question 11

NEW QUESTION 58

- (Topic 1)

An online retailer has been successful utilizing analytics to guide decisions on product placement and marketing spend. Management has requested a task force be assembled to make recommendations on how to further develop their analytics capabilities. To begin this work, the task force builds a model to develop a shared understanding about customer segments, customer relationships, key partnerships, and the company's value proposition. The team has leveraged the following model to facilitate this discussion?

- A. Value chain analysis
- B. Balanced scorecard
- C. Business model canvas
- D. CATWOE

Answer: C

Explanation:

The business model canvas is the model that the task force has leveraged to facilitate the discussion, because it is a technique that describes the logic of how an organization creates, delivers, and captures value. The business model canvas consists of nine building blocks that cover the key aspects of a business: customer segments, value proposition, channels, customer relationships, revenue streams, key resources, key activities, key partnerships, and cost structure. The business model canvas can help the task force develop a shared understanding of the current state of the online retailer, and identify the opportunities and challenges for developing their analytics capabilities. References:

- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 6: Guide Organization-level Strategy for Business Analytics
- Understanding the Guide to Business Data Analytics, page 9
- 10.8 Business Model Canvas | IIBA®

NEW QUESTION 63

- (Topic 1)

A professional association is funded by membership fees. The membership renewal occurs every 5 years. Although, they have a strong subscription rate each year, their renewal rate is low. They are working with an external firm specializing in Business Analytics to identify the groups of customers that have a high likelihood of cancelling their subscription after their first 5-year term ends. This type of study is called:

- A. Untrained learning
- B. Supervised learning
- C. Trained learning
- D. Unsupervised learning

Answer: D

Explanation:

Unsupervised learning is a type of study that involves finding patterns or clusters in data without any predefined labels or outcomes. It is useful for exploring data and discovering hidden structures or groups of customers. For example, the professional association can use unsupervised learning to identify the characteristics of customers who are likely to cancel their subscription after their first 5-year term ends, and then design strategies to retain them¹² References: 1: What is Unsupervised Learning? - IBM 2: Unsupervised Learning - IIBA BABOK Guide v3

NEW QUESTION 65

- (Topic 1)

Collaborative games are used by a business analyst to identify the research questions to be explored within an analytics system.

Participants are asked to write down a research question on a sticky note, put the notes on the wall, and move them towards related research questions. What type of Collaborative game is being played?

- A. Affinity Map
- B. Fishbowl
- C. People polling
- D. Product Box

Answer: A

Explanation:

An affinity map is a collaborative game that helps participants to group similar ideas or features together. It is useful for identifying research questions that are related to each other and finding common themes or patterns. In this game, participants write down their research questions on sticky notes and place them on the wall. Then, they move the notes around to form clusters of related questions. The clusters can be labeled with a descriptive name or a question that summarizes the theme. An affinity map can help participants to prioritize the most important or relevant research questions and generate insights from the data.

<https://businessanalystmentor.com/collaborative-games-business-analysis/>

NEW QUESTION 69

- (Topic 1)

Senior executives in a large organization receive numerous sales reports of every sale through a corporate dashboard on a weekly basis. The executives are considering budget increases for various functions but would like to know if they are obtaining good returns for current budget allocations. They ask the analytics team to research and Answer: "How effective is our marketing spend?" This question is:

- A. Already answered in the sales data
- B. Difficult to analyze because its narrowly focused
- C. Sufficient to begin initial analysis
- D. Too broadly scoped to be effectively answered

Answer: D

Explanation:

The question "How effective is our marketing spend?" is too broadly scoped to be effectively answered, because it is a vague and ambiguous question that does not specify the criteria, scope, or timeframe for measuring the effectiveness of the marketing spend. The question also does not define what constitutes marketing spend, or how it relates to the sales data or the budget allocations. The question needs to be refined and clarified to make it more focused, relevant, and feasible for the analytics team to answer. For example, the question could be rephrased as "How does the marketing spend per channel affect the sales revenue and customer retention rate in the last quarter?" References:

- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 1: Identify the Research Questions
- Understanding the Guide to Business Data Analytics, page 10-11
- CERTIFICATION IN BUSINESS DATA ANALYTICS HANDBOOK - IIBA®, page 8, CBDA Exam Sample Questions and Self-Assessment, Question 16

NEW QUESTION 72

- (Topic 1)

Interested in building out the analytics capability based on the positive results obtained by past analytics efforts, the Chief Marketing Officer (CMO) pitches the idea of using analytics to guide future decision making across the enterprise. Before allocating budget to build up an enterprise analytics practice, the decision makers should:

- A. Request that a small team be assembled to brainstorm a list of capabilities to develop with any approved monies
- B. Identify the sponsor and a project manager who can collaborate on the development of the project charter
- C. Oversee the completion of up-front analysis to determine how value can be achieved through an enterprise-wide analytics practice
- D. Determine if the company has the sufficient resources to build up the analytics practice

Answer: C

Explanation:

Before investing in an enterprise analytics practice, the decision makers should have a clear understanding of the expected value and benefits of such a practice. This requires conducting an up-front analysis that identifies the business problems or opportunities that can be addressed by analytics, the data sources and technologies that are needed, the analytical models and methods that are appropriate, and the metrics and indicators that will measure the impact and outcomes of the analytics solutions¹². This analysis will help to define the scope, objectives, and requirements of the enterprise analytics practice, as well as the resources, roles, and governance structures that are necessary to support it³⁴. An up-front analysis will also help to prioritize the analytics initiatives based on their feasibility, alignment with the business strategy, and potential value creation

NEW QUESTION 75

- (Topic 1)

A marketing director has asked the question 'How many product purchases are expected this coming year given the current marketing campaign?'. What type of analytics would be performed to answer this question?

- A. Descriptive
- B. Predictive
- C. Diagnostic
- D. Prescriptive

Answer: B

Explanation:

Predictive analytics is a type of analytics that uses historical and current data, as well as statistical and machine learning techniques, to forecast future events or outcomes, such as product purchases, customer behavior, or market trends¹². To answer the question "How many product purchases are expected this coming year given the current marketing campaign?", predictive analytics would be performed to estimate the demand and sales based on the existing data and the marketing campaign variables. References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 182: Predictive Analytics: The Power to Predict

Who Will Click, Buy, Lie, or Die, Eric Siegel, 2016, p. 3.

NEW QUESTION 76

- (Topic 1)

A financial software company has growth and expansion as one of their top strategic priorities for the year. The senior executive team would like to assess their sales performance over the last 3 years to help set sales objectives. In discussion with the business analytics manager, for a comprehensive sales report, the sales lead recommends looking into the number of contracts signed over the past 3 years and the dollar value for the signed contracts. Which other question is important to consider when evaluating sales performance?

- A. What is the time to market the software?
- B. What is the total cost incurred per year?
- C. What is the number of customers retained over the past 3 years?
- D. What is the average time for conversion?

Answer: D

Explanation:

The average time for conversion is the average number of days it takes to convert a lead into a customer. This is an important question to consider when evaluating sales performance, because it indicates the efficiency and effectiveness of the sales process. A shorter time for conversion means that the sales team can close more deals in less time, and thus increase the revenue and profitability of the company. A longer time for conversion may indicate that there are bottlenecks, challenges, or inefficiencies in the sales process that need to be addressed. References:

- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 5: Use Results to Influence Business Decision Making
- Understanding the Guide to Business Data Analytics, page 9
- Business Data Analytics (IIBA®-CBDA Exam preparation) | Udemy, Section 4: Interpret and Report Results, Lecture 19: Sales Performance Metrics

NEW QUESTION 79

- (Topic 1)

The team has completed their analysis on a vast amount of collected data and agree on their recommendations for action.

However, they are having difficulty in developing the appropriate messages to support their recommendations. The business analysis professional suggests which technique to assist the team?

- A. T-Testing
- B. Simulation
- C. Visioning
- D. Storyboarding

Answer: D

Explanation:

Storyboarding is a technique that helps the team to develop the appropriate messages to support their recommendations by creating a visual sequence of the main points, evidence, and actions. Storyboarding helps the team to organize their thoughts, identify gaps, and communicate their findings in a clear and compelling way. References: 1: Developing Key Messages for Effective Communication - MSKTC 2: 11 Ways Highly Successful Leaders Support Their Team - Redbooth

NEW QUESTION 81

- (Topic 1)

An analyst at a phone manufacturing company is preparing a dashboard for Senior Executives that will cover past year's performance. It will be used in the upcoming senior leadership team meeting to make strategic decisions for the new year. While analyzing the data, the analyst found a lot of interesting revelations related to performance. What should the analyst keep in mind when preparing the Executive dashboard?

- A. Keep some sections high-level, and some sections detailed
- B. Keep it detailed if there is a lot of good information to share
- C. Keep it high-level, summarizing key insights and metrics
- D. Keep it detailed so one dashboard can be shared to all levels of the organization

Answer: C

Explanation:

When preparing an executive dashboard, the analyst should keep in mind that the purpose of the dashboard is to provide a quick and clear overview of the past year's performance and to support strategic decision making for the new year. Therefore, the analyst should keep the dashboard high-level, summarizing the key insights and metrics that are relevant and meaningful for the senior executives. The analyst should avoid cluttering the dashboard with too much detail or information that is not essential for the executives. The analyst should also use visual features, such as charts, graphs, and colors, to display the data in an organized and appealing way. References: 1: Executive Dashboards: 10 Reporting Tips and Examples [2023] • Asana 2: How to Create Executive Dashboard & Reports - Ubiq BI

NEW QUESTION 82

- (Topic 1)

An analyst is using a Data Flow Diagram (DFD) to depict the flow of data across a data security company. Which of the following is true about DFDs?

- A. Can be categorized as Logical or Physical
- B. Can illustrate a sequence of activities
- C. Provide similar information as process flows
- D. Are used to model data attributes

Answer: A

Explanation:

A Data Flow Diagram (DFD) is a technique that shows the flow of data among processes, data stores, and external entities in a system. DFDs can be categorized as logical or physical, depending on the level of detail and abstraction. A logical DFD focuses on the business functions and data flows, without specifying the implementation details. A physical DFD shows the actual components and mechanisms that are involved in the data flow, such as hardware, software, files, and

network connections. References:

- 10.13 Data Flow Diagrams | IIBA® - International Institute of Business ??, menu, 10.13 Data Flow Diagrams
- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 2: Source Data
- Introduction to Business Data Analytics: Organizational View, page 16, Figure 6: Data Flow Diagram

NEW QUESTION 85

- (Topic 1)

A government agency is conducting a study on the performance of 12th grade students' in mathematics across the country. In particular, they want to understand if there is a relationship between intelligence and scores, as well as the difference in performance between various locations. Which combination of inferential statistics procedures should be used?

- A. Range, standard deviation
- B. Mean, median
- C. Correlation co-efficient, analysis of variance
- D. Frequency distribution, time-series

Answer: C

Explanation:

A correlation co-efficient is a measure of the strength and direction of the linear relationship between two variables, such as intelligence and scores. A correlation co-efficient can range from -1 to 1, where -1 indicates a perfect negative relationship, 0 indicates no relationship, and 1 indicates a perfect positive relationship¹². An analysis of variance (ANOVA) is a procedure that tests whether the means of two or more groups are significantly different from each other, such as the performance of students across various locations. ANOVA can compare the variation within eachgroup and the variation between groups to determine if there is a statistically significant difference among the group means³⁴. References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 582: Statistics for Business and Economics, David R. Anderson et al., 2014, p. 7133: Guide to Business Data Analytics, IIBA, 2020, p. 594: Statistics for Business and Economics, David R. Anderson et al., 2014, p. 849.

NEW QUESTION 86

- (Topic 2)

Results of the data analysis have been analyzed and the team was confident with the results but also quite surprised the outcome was not what was expected. In pondering the value of what can be gleaned from the data, the team has no feasible solution to put forth to address the business need.A logical next step would be to:

- A. Repeat the business analytics cycle with the formation of a new research question
- B. Provide the results to a 2nd analytics team to see if similar conclusions are drawn
- C. Analyze the data again, to determine if any insights were overlooked
- D. Check the quality of the data that was used for the analysis

Answer: A

Explanation:

According to the Guide to Business Data Analytics, the business analytics cycle is an iterative process that consists of four phases: identify the research questions, source data, analyze data, and interpretand report results. The cycle can be repeated as many times as needed until the business problem or opportunity is addressed or resolved. In this situation, the team was confident with the results but also surprised that the outcome was not what was expected. This means that the initial research question may not have been relevant, specific, or testable enough to provide a feasible solution for the business need. Therefore, a logical next step would be to repeat the business analytics cycle with the formation of a new research question that is more aligned with the business goal, scope, and context.

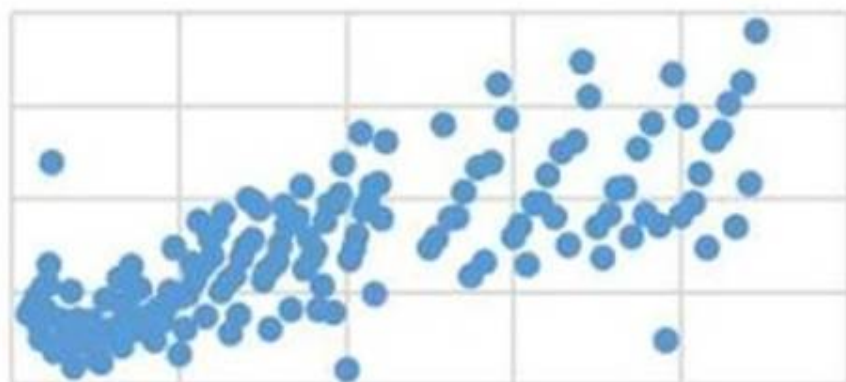
References: Guide to Business Data Analytics, page 47-48; CBDA Exam Blueprint, page 7; [Introduction to Business Data Analytics: A Practitioner View], page 15.

NEW QUESTION 88

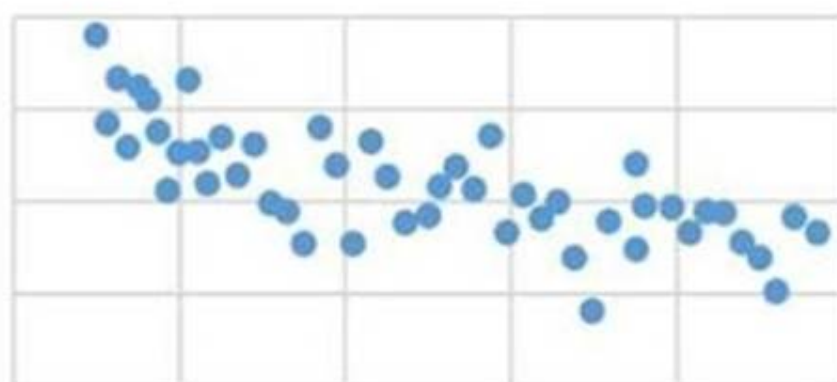
- (Topic 2)

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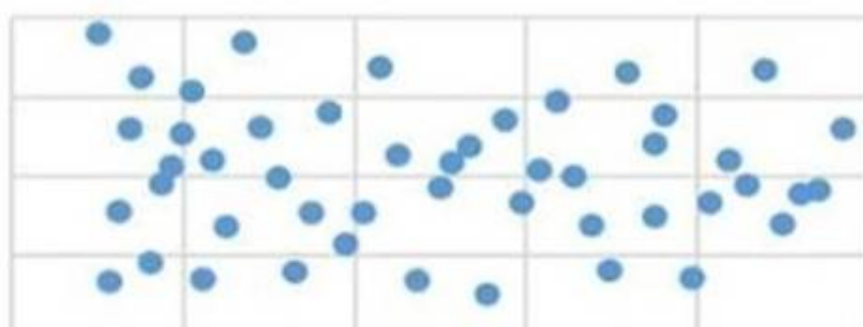
A data scientist is analyzing a dataset to determine if there is a strong relationship between twovariables. A measure of covariance is done. Which of the following graphs indicate Zero Covariance between variables?



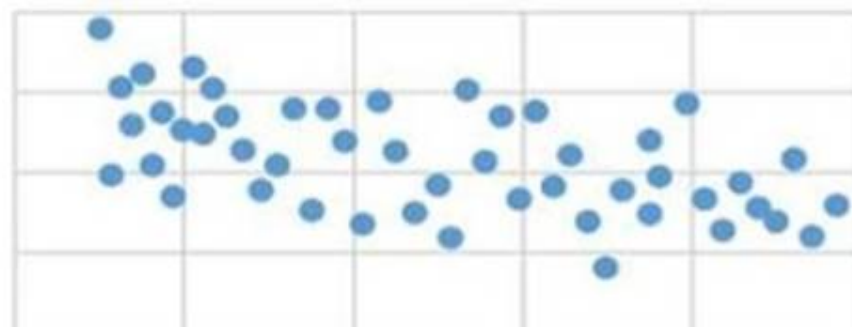
1.



2.



3.



4.

- A. 3
- B. 1
- C. 4
- D. 2

Answer: C

Explanation:

In the context of Business Data Analytics (IIBA®- CBDA), zero covariance between two variables indicates that there is no linear relationship between those variables. When the covariance is zero, it means the variables are independent of each other. In the provided options, graph 4 shows a random scatter of data points without any apparent trend or pattern, indicating zero covariance.

References: The explanation is in alignment with the concepts and principles outlined in IIBA's resources on Business Data Analytics, particularly focusing on statistical analysis and data interpretation.

NEW QUESTION 90

- (Topic 2)

The finance manager has reported that customers are taking much longer to remit payments this year than last. They would like help in finding a solution to address the situation. One suggestion was to offer a 10% discount to entice customers to pay their invoices in full within the first 30 days. Before offering the discount, the finance manager would like the analytics team to do some research to determine if there is value in addressing the accounts receivable problem. Which of the following is a valid question to ask in this situation?

- A. Have discounts been offered before?
- B. Are sales decreasing when accounts receivables are increasing?
- C. How does credit score impact the customer's ability to pay?
- D. Should the discount offered be set at 10% or 15%?

Answer: A

Explanation:

According to the Guide to Business Data Analytics, one of the steps in conducting business data analytics is to identify the research questions that will guide the analysis and help answer the business problem or opportunity. The research questions should be relevant, specific, measurable, achievable, and testable. In this situation, the business problem is the delay in customer payments and the potential solution is to offer a discount. A valid question to ask in this situation is whether discounts have been offered before, and if so, what was the effect on customer behavior and profitability. This question is relevant because it can help assess the feasibility and effectiveness of the proposed solution. It is also specific, measurable, achievable, and testable, as it can be answered by collecting and analyzing historical data on customer payments and discounts.

References: Guide to Business Data Analytics, page 47-48; CBDA Exam Blueprint, page 7; [Introduction to Business Data Analytics: A Practitioner View], page 15.

NEW QUESTION 94

- (Topic 2)

To support their recommendation, the analytics team has identified investment and resources required to implement. The team has also identified key activities and events that are required to transition the organization through various stages to the future state. This information is clearly articulated in the:

- A. Risk assessment
- B. Gap analysis
- C. Change strategy
- D. Gantt chart

Answer: C

Explanation:

According to the Guide to Business Data Analytics, a change strategy is a document that outlines the approach and plan for managing the change resulting from the data analysis and the proposed solution. A change strategy should include the following elements: the vision and objectives of the change, the scope and impact of the change, the stakeholders and their roles and responsibilities, the communication and engagement plan, the training and development plan, the transition and implementation plan, the risk and issue management plan, and the evaluation and measurement plan. A change strategy can help ensure that the change is aligned with the business goals, that the stakeholders are informed and involved, that the risks and issues are identified and mitigated, and that the benefits and outcomes are realized and sustained.

References: Guide to Business Data Analytics, page 84-85; CBDA Exam Blueprint, page 8; [Introduction to Business Data Analytics: A Practitioner View], page 26.

NEW QUESTION 95

- (Topic 2)

The results for a certification exam were revealed in percentage and percentile. How would you infer the results for an attendee at: 75%, 90th percentile?

- A. While the attendee's exam score was 90/100. the attendee did better than 75% of the attendees
- B. While the attendee's exam score was 90/100. the attendee did better than 25% of the attendees
- C. While the attendee's exam score was 75/100. the attendee did better than 10% of the attendees
- D. While the attendee's exam score was 75/100. the attendee did better than 90% of the attendees

Answer: D

Explanation:

A percentage is a way of expressing a number as a fraction of 100, while a percentile is a way of expressing a number as a rank or position in a distribution of values. A percentage tells us how much of something there is, while a percentile tells us how well something performed compared to others. To infer the results for an attendee at 75%, 90th percentile, we need to understand what these two numbers mean.

? 75% means that the attendee scored 75 out of 100 possible points on the exam.

This is the absolute score of the attendee, which does not depend on how others performed.

? 90th percentile means that the attendee scored higher than 90% of all the attendees who took the exam. This is the relative score of the attendee, which depends on how others performed. For example, if there were 1000 attendees, the 90th percentile would mean that the attendee scored higher than 900 attendees, and lower than 100 attendees.

Therefore, the correct inference is that while the attendee's exam score was 75/100, the attendee did better than 90% of the attendees. This means that the attendee's score was above average, and that the exam was relatively difficult or had a low pass

rate. References:

? Difference Between Percentage and Percentile | Major Differences - BYJU??S, BYJU??S, accessed on January 20, 2024.

? Difference Between Percentage and Percentile (with Examples and Comparison Chart) - Key Differences, Key Differences, accessed on January 20, 2024.

? Certification in Business Data Analytics (IIBA ® - CBDA), IIBA, accessed on January 20, 2024.

NEW QUESTION 99

- (Topic 2)

A toy manufacturing company wants to improve operational efficiencies as a means of reducing costs. The Operational Manager wants an analytics study to identify areas of improvement within their operational processes. During a meeting with the analyst, the Operational Manager mentions concerns about old machinery and suggests this be the area of focus for the study. They can have a touchpoint in three weeks to assess progress. Has the Operational Manager limited the potential of this study?

- A. By providing the focus area of the study, the Operational Manager has limited the scope of the study with their biased opinion
- B. The Operational Manager is the expert, so there is no problem in the manager providing guidance to the analyst
- C. The Operational Manager has limited the scope of the budget by providing a timeline of three weeks
- D. Since the study is being funded by the Operational Manager, providing the focus areas helps the analyst stay on track with time and budget

Answer: A

Explanation:

According to the Guide to Business Data Analytics, one of the key competencies of a business data analyst is to identify the research questions that guide the analytics work¹. The research questions should be based on the business problem or opportunity, the stakeholder needs, and the data availability and quality². By providing the focus area of the study, the Operational Manager has limited the scope of the study with their biased opinion, as they have not considered other possible factors that might affect the operational efficiencies, such as demand, inventory, quality, labor, or customer satisfaction. The Operational Manager has also not involved other stakeholders who might have different perspectives or interests in the study. This could lead to a narrow or incomplete analysis that might miss some important insights or recommendations. The Operational Manager should instead collaborate with the analyst to define the research questions that are relevant, specific, measurable, achievable, and time-bound³.

The other options are not correct, as they do not address the issue of defining the research questions. The Operational Manager is not necessarily the expert on the operational processes, as they might have a limited or biased view of the situation. The Operational Manager has not limited the scope of the budget by providing a timeline of three weeks, as this is a reasonable time frame for an analytics study, depending on the complexity and availability of the data. The Operational Manager has not helped the analyst stay on track with time and budget by providing the focus areas, as this might actually waste time and resources if the focus areas are not aligned with the actual business problem or opportunity.

References: ¹: Guide to Business Data Analytics, IIBA, 2020, p. 312: Introduction to Business Data Analytics: A Practitioner View, IIBA, 2019, p. 113: Introduction to Business Data Analytics: An Organizational View, IIBA, 2019, p. 12.

NEW QUESTION 103

- (Topic 2)

A food and beverage company would like to administer a survey to obtain customer insights about a new cookie product recently launched. A data team is asked to build the survey paying careful attention to reduce the degree of sampling error. Which criteria would help the team meet this objective?

- A. Large sample size and variation in the target population
- B. Large sample size and random selection of the target population
- C. Small sample size and specific subset of the target population
- D. Small sample size and using customers who agreed to take the survey

Answer: B

Explanation:

Sampling error is the difference between the results obtained from a sample and the results obtained from the population from which the sample is drawn¹. Sampling error can affect the validity, reliability, and generalizability of the survey results². To reduce the degree of sampling error, the data team should use a large sample size and a random selection of the target population. A large sample size means that the sample is more likely to represent the diversity and variability of the population, and that the results are more precise and accurate³. A random selection of the target population means that every member of the population has an equal chance of being included in the sample, and that the results are less biased and more representative⁴.

The other criteria would not help the team meet this objective, as they would increase the degree of sampling error. A large sample size and variation in the target population would not reduce the sampling error, as variation refers to the differences or heterogeneity within the population, not the sample. Variation in the target population can increase the sampling error, as it makes it harder to capture the true characteristics of the population with a sample⁵. A small sample size and specific subset of the target population would not reduce the sampling error, as they would make the sample less representative and more prone to bias. A small sample size means that the sample is less likely to reflect the diversity and variability of the population, and that the results are less precise and accurate. A specific subset of the target population means that the sample is not randomly selected, but based on some criteria or convenience, and that the results are more biased and less representative. A small sample size and using customers who agreed to take the survey would not reduce the sampling error, as they would also make the sample less representative and more prone to bias. A small sample size has the same drawbacks as mentioned above. Using customers who agreed to take the survey means that the sample is not randomly selected, but based on self-selection or voluntary response, and that the results are more biased and less representative.

References: ¹: Guide to Business Data Analytics, IIBA, 2020, p. 542: Introduction to Business Data Analytics: A Practitioner View, IIBA, 2019, p. 223: Data Analysis: The Definitive Guide, Tableau, 4: Data Analysis: The Definitive Guide, Tableau, 5: Data Analysis: The Definitive Guide, Tableau, . : Data Analysis: The Definitive Guide, Tableau, .

: Data Analysis: The Definitive Guide, Tableau, . : Data Analysis: The Definitive Guide, Tableau, . : Guide to Business Data Analytics, IIBA, 2020, p. 54. : Introduction to Business Data Analytics: A Practitioner View, IIBA, 2019, p. 22. : Data Analysis: The Definitive Guide, Tableau, . : Data Analysis: The Definitive Guide, Tableau, . : Data Analysis: The Definitive Guide, Tableau, . : Data Analysis: The Definitive Guide, Tableau, . : Data Analysis: The Definitive Guide, Tableau, .

NEW QUESTION 108

- (Topic 2)

Allegra Consulting is planning on establishing an analytics system to track career progression of their consultants. Elicitation will be used to identify the required features. How would brainstorming be used to prepare for elicitation?

- A. To identify sources of business information to consider
- B. To identify the key metrics to be collected
- C. Determine the value for establishing the analytics system
- D. To choose the statistical methods required

Answer: A

Explanation:

According to the Guide to Business Data Analytics, one of the tasks under the domain of ??Identify the Research Questions?? is to identify sources of business information to consider. This task involves reviewing existing business information, such as documents, reports, databases, and systems, to determine what data is available, relevant, and reliable for answering the research questions. This task also involves identifying any gaps or limitations in the existing information and proposing ways to address them. References: Guide to Business Data Analytics, page 18-19; CBDA Exam Blueprint, page 6. Learn more1iiba.org2iiba.org3processexam.com

NEW QUESTION 113

- (Topic 2)

An HR manager attended a conference where the topic of HR analytics was presented. The manager returned to the office feeling strongly that analytics could be used to guide hiring decisions in the future. Which of the following results would assist the HR team in making such decisions?

- A. Employee skill gaps
- B. Employee engagement scores
- C. Workforce performance
- D. Absentee rates

Answer: A

Explanation:

According to the Introduction to Business Data Analytics: A Practitioner View, employee skill gaps are the differences between the skills that employees have and the skills that they need to perform their jobs effectively. Employee skill gaps can affect the productivity, quality, and innovation of an organization. HR analytics can help identify and measure employee skill gaps and provide insights on how to close them. HR analytics can also help guide hiring decisions by finding the best candidates who have the required skills or the potential to acquire them. By using HR analytics to address employee skill gaps, the HR team can improve the alignment of human capital with organizational goals and strategies.

References: Introduction to Business Data Analytics: A Practitioner View, page 17; CBDA Exam Blueprint, page 7; What is HR Analytics? All You Need to Know to Get Started

NEW QUESTION 116

- (Topic 2)

While formulating the results from completed analysis, the analytics team is applying different techniques to determine an optimal solution to the specified business problem. Which of the following runs the risk of introducing bias in their decision making process?

- A. Evidenced-based decision making
- B. Expert judgement and experience
- C. Correlations identified through artificial intelligence
- D. Letting the data tell the story

Answer: B

Explanation:

Expert judgement and experience are valuable sources of knowledge and insight for business data analytics, but they can also introduce bias in the decision making process. Bias is a tendency to favor or reject a certain perspective, outcome, or solution based on personal or subjective preferences, beliefs, or expectations. Bias can affect the quality, validity, and reliability of the data analysis and the resulting decisions. Some examples of bias that can affect expert judgement and experience are confirmation bias, availability bias, anchoring bias, and overconfidence bias. To avoid or minimize bias, business data analysts should apply critical thinking, data literacy, and ethical principles throughout the data analysis process. They should also seek diverse perspectives, challenge assumptions, validate findings, and communicate uncertainties and limitations. References:10 Cognitive Biases in Business Analytics and How to Avoid Them; Business Data Analytics: A Decision-Making Paradigm, page 8; Guide to Business Data Analytics, page 11.

NEW QUESTION 118

- (Topic 2)

A job satisfaction study is being considered. Half of the employees of the company will be interviewed by senior managers and the other half of the employees will be interviewed by an external market research company, using the same set of questions. Which of the following might be a concern for using this approach to collect study data?

- A. Reliability
- B. Validity
- C. Timeliness
- D. Precision

Answer: A

Explanation:

Reliability is the degree to which a data collection method produces consistent results under the same conditions1. In this case, the reliability of the study data might be compromised by the different interviewers (senior managers vs. external market research company), who might have different biases, expectations, or rapport with the employees. This could affect how the employees respond to the same set of questions, and thus introduce variability in the data. Validity, timeliness, and precision are not directly affected by the choice of interviewers, as they depend more on the quality, relevance, and accuracy of the questions and the data analysis. References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 26.

NEW QUESTION 122

- (Topic 2)

The data analysis completed by the analytics team points to three potential options that could be recommended by the team each of which will help their organization meet their desired goal. Given that there is no significant difference in the results that each option would provide, the team will reach a final recommendation by determining value to be delivered to specific parts of the organization and:

- A. Within the functional unit with the most staff
- B. By which manager wants the change the most

- C. Assessing the impact of change for each one
- D. By obtaining a decision by senior management

Answer: C

Explanation:

According to the IIBA's Guide to Business Data Analytics, one of the steps in the data analysis process is to use the results to influence business decision making. This involves evaluating the feasibility, viability, and desirability of the potential options or solutions that are derived from the data analysis, and recommending the best option or solution that aligns with the business goals and objectives¹. To evaluate the feasibility, viability, and desirability of the options or solutions, the data analysis team should consider the value to be delivered to specific parts of the organization and the impact of change for each one. The value to be delivered refers to the benefits, outcomes, or improvements that the option or solution will provide to the stakeholders, customers, or processes of the organization. The impact of change refers to the costs, risks, or challenges that the option or solution will entail for the implementation, adoption, or maintenance of the organization. By assessing the value and the impact of each option or solution, the data analysis team can compare and contrast the trade-offs, pros and cons, and strengths and weaknesses of each option or solution, and select the one that maximizes the value and minimizes the impact for the organization². The other options are not correct criteria for reaching a final recommendation. The functional unit with the most staff, the manager who wants the change the most, and the senior management are not relevant factors for evaluating the options or solutions, as they do not reflect the value or the impact of the options or solutions. The functional unit with the most staff may not be the most affected or the most important part of the organization for the data analysis project. The manager who wants the change the most may not have the authority, influence, or expertise to make the best decision for the organization. The senior management may not be the only or the final decision makers for the data analysis project, as they may delegate, consult, or collaborate with other stakeholders or experts. References:1: Guide to Business Data Analytics, IIBA, 2020, p. 572: Guide to Business Data Analytics, IIBA, 2020, p. 58. : Guide to Business Data Analytics, IIBA, 2020, p. 57. : Guide to Business Data Analytics, IIBA, 2020, p. 58.

NEW QUESTION 123

- (Topic 2)

An organization has a customer database of 3000 customers and has accumulated 5 years of sales data. They want to make decisions about which products to retire and which to continue to offer. Management has turned to the analytics team to analyze the data and provide recommendations. The analytics team develops a survey to send to randomly selected customers. This is an example of:

- A. Data Wrangling
- B. Data Manipulation
- C. Data Grouping
- D. Data Sampling

Answer: D

Explanation:

Data sampling is the process of selecting a subset of data from a larger population to represent the characteristics of the whole population. Data sampling is often used when the population is too large or costly to collect data from every individual. Data sampling can help reduce the time, cost, and complexity of data analysis, while maintaining the validity and reliability of the results. Data sampling can also help avoid biases and errors that may arise from collecting data from the entire population. Data sampling can be done using various methods, such as random sampling, stratified sampling, cluster sampling, or convenience sampling, depending on the research objectives and the availability of data. In this example, the analytics team develops a survey to send to randomly selected customers, which is a form of data sampling. The survey aims to collect data from a representative sample of customers that can reflect the preferences and opinions of the entire customer population. The survey data can then be used to analyze the performance and demand of different products, and provide recommendations to management. References:

? [Business Data Analytics: A Practitioner's Guide], Chapter 4: Data Analysis, Section 4.2: Data Sampling, pp. 69-72.

? [A Guide to the Business Analysis Body of Knowledge® (BABOK® Guide)], Version 3, Chapter 6: Solution Evaluation, Section 6.2: Analyze Performance Measures, pp. 152-153.

NEW QUESTION 126

- (Topic 2)

What is the relationship between a Customer entity and an Order entity, where a customer entry will be present in the Customer entity regardless of whether an order was made?

- A. zero-to-one
- B. many-to-many
- C. zero-to-many
- D. one-to-one

Answer: C

Explanation:

A zero-to-many relationship between two entities means that one instance of the first entity can be associated with zero or more instances of the second entity, and one instance of the second entity can be associated with only one instance of the first entity¹. In this case, a customer entry will be present in the Customer entity regardless of whether an order was made, which means that a customer can have zero or more orders, but an order can only belong to one customer.

Therefore, the relationship between Customer and Order is zero-to-many.

References:1: Entity Relationship Diagram (ERD) Tutorial - Part 1

NEW QUESTION 130

- (Topic 2)

A supermarket chain wants to improve supplier relations. One of the targets to track and help achieve this goal is to improve the average transaction time per order by 10%. From a SMART target perspective, what is missing?

- A. is not attainable as weather conditions can slow down order times
- B. S • should provide a target for each supplier
- C. R - is not relevant to the goal as supplier relations is only dependent on quality of deliveries
- D. T - There is no mention of the time-frame by which this target must be met

Answer: D

Explanation:

SMART is an acronym that stands for Specific, Measurable, Achievable, Relevant, and Time-bound, which are criteria for setting effective and realistic goals¹. From a SMART target perspective, what is missing in this scenario is the time-frame by which the target must be met. A time-bound target specifies the deadline or the duration for achieving the target, which helps to create a sense of urgency, motivation, and accountability². Without a time-frame, the target is vague and indefinite, and it is difficult to monitor and evaluate the progress and the results. For example, a time-bound target could be to improve the average transaction time per order by 10% within the next six months.

The other options are not correct explanations of what is missing. The target is attainable, as it is realistic and feasible, and it does not depend on factors that are beyond the control of the organization, such as weather conditions. The target is specific, as it provides a clear and precise description of what needs to be achieved, and it does not need to provide a target for each supplier, as that would make the target too complex and cumbersome. The target is relevant, as it is aligned with the goal of improving supplier relations, and it does not assume that supplier relations is only dependent on quality of deliveries, as transaction time is also an important factor that affects the efficiency, satisfaction, and trust of the suppliers.

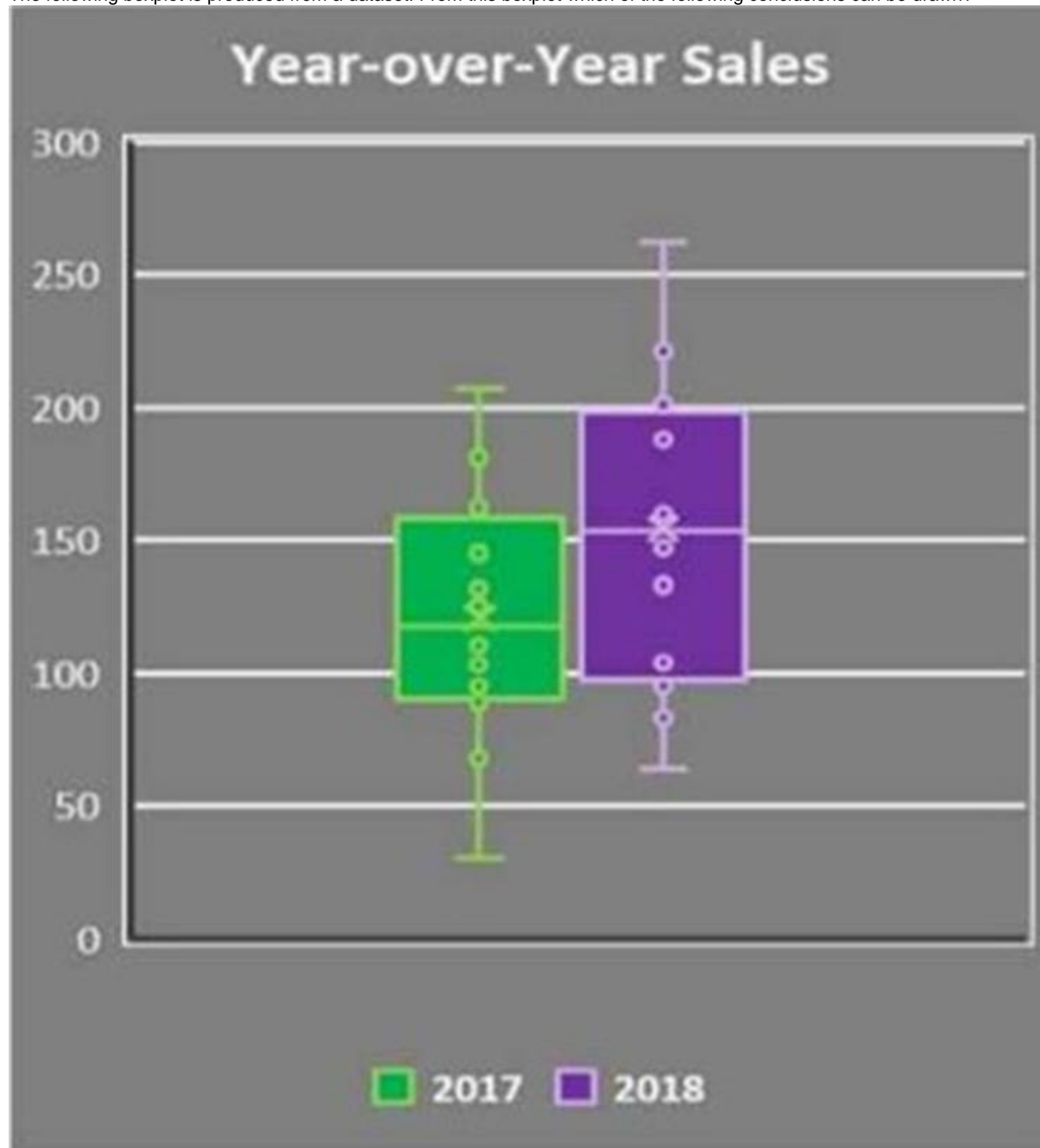
References:1: Introduction to Business Data Analytics: An Organizational View, IIBA, 2019, p. 122: Introduction to Business Data Analytics: A Practitioner View, IIBA, 2019, p. 12. : Introduction to Business Data Analytics: An Organizational View, IIBA, 2019, p. 12. : Introduction to Business Data Analytics: A Practitioner View, IIBA, 2019, p. 12.

NEW QUESTION 134

- (Topic 2)

DIAGRAM

The following boxplot is produced from a dataset. From this boxplot which of the following conclusions can be drawn?



Year-over-Year Sales

300

200

- A. The medians and the inter-quartile range is the same in each group
- B. The medians and the inter-quartile ranges are different in each group
- C. The medians are the same but the inter-quartile ranges are not
- D. The inter-quartile ranges are the same but the medians are not

Answer: B

Explanation:

According to the Guide to Business Data Analytics, a boxplot is used to provide a visual summary of one or more groups of data values through their quartiles. In

this case, the boxplot shows two different years, 2017 and 2018, with distinct medians and interquartile ranges. The median is represented by the line inside the box, while the interquartile range is represented by the height of the box itself. Outliers are marked with circles above and below the box. From the boxplot, we can see that the median sales for 2018 are higher than the median sales for 2017, and the interquartile range for 2018 is narrower than the interquartile range for 2017. This means that the sales for 2018 are more concentrated around the median and have less variability than the sales for 2017. Therefore, the correct answer is B.
References: Guide to Business Data Analytics, page 58-59; CBDA Exam Blueprint, page 7; [Introduction to Business Data Analytics: A Practitioner View], page 17. [Year-over-Year Sales]

NEW QUESTION 139

- (Topic 2)

An analytics team is discussing ways to improve company performance. Before identifying a set of research questions to analyze, they identify the need to understand the current company strategy and performance. The business analyst suggests using the Balanced Scorecard technique to guide this discussion. In which dimension of the matrix would the team be discussing metrics for changing and improving?

- A. Learning and Growth
- B. Customer
- C. Financial
- D. Internal Business Process

Answer: A

Explanation:

According to the Introduction to Business Data Analytics: An Organizational View, the Balanced Scorecard technique is a strategic management tool that helps organizations align their vision, mission, and goals with their performance measures. The Balanced Scorecard consists of four dimensions: financial, customer, internal business process, and learning and growth. Each dimension has a set of objectives, measures, targets, and initiatives that reflect the organization's strategy and value proposition. The learning and growth dimension focuses on the metrics for changing and improving the organization's capabilities, such as employee skills, knowledge, innovation, and culture. The learning and growth dimension supports the other three dimensions by providing the necessary resources and competencies to achieve the desired outcomes.

References: Introduction to Business Data Analytics: An Organizational View, page 9- 10; CBDA Exam Blueprint, page 7; [Balanced Scorecard Basics - Balanced Scorecard Institute]

NEW QUESTION 143

- (Topic 2)

Interested in ensuring that analytics continues to contribute value to the overall organization, the lead analyst suggests developing a long term plan to define how the enterprise will identify, store, manage, share, and use its data long-term. The analyst is proposing the development of a:

- A. Data roadmap
- B. Business strategy
- C. Data strategy
- D. Data management plan

Answer: C

Explanation:

A data strategy is a long-term plan that defines how the enterprise will identify, store, manage, share, and use its data to achieve its business goals and objectives¹. A data strategy aligns the data vision, mission, principles, and policies with the business strategy, and guides the data governance, data quality, data architecture, data security, data integration, data analytics, and data culture of the organization². A data strategy helps the organization to leverage its data as a strategic asset, to create value, to improve performance, and to gain competitive advantage³.

A data roadmap is a document that outlines the specific actions, milestones, deliverables, and timelines for implementing the data strategy. A data roadmap is a tactical tool that helps the organization to prioritize, coordinate, and communicate its data initiatives, and to track its progress and outcomes. A data roadmap is not a long-term plan, but a dynamic and flexible plan that can be updated and revised as the data strategy evolves.

A business strategy is a high-level plan that defines how the enterprise will achieve its vision, mission, and goals in a competitive market. A business strategy sets the direction, scope, and value proposition of the organization, and guides its decisions on resource allocation, product development, customer segmentation, pricing, marketing, and differentiation. A business strategy is not a plan that defines how the enterprise will identify, store, manage, share, and use its data, but a plan that defines how the enterprise will create and sustain value for its stakeholders.

A data management plan is a document that describes the data that will be collected, generated, or used in a specific project, and how the data will be handled, stored, preserved, shared, and reused during and after the project. A data management plan is a operational tool that helps the project team to comply with the data policies, standards, and best practices of the organization, and to ensure the quality, integrity, security, and accessibility of the data. A data management plan is not a long-term plan, but a project- specific plan that can be modified and updated as the project progresses.

References:¹ Guide to Business Data Analytics, IIBA, 2020, p. 392; Introduction to Business Data Analytics: An Organizational View, IIBA, 2019, p. 143; Data Strategy: The Definitive Guide, Tableau, . : Data Strategy: The Definitive Guide, Tableau, . : Data Roadmap: The Definitive Guide, Tableau, . : Business Strategy: The Definitive Guide, Tableau, . : Business Strategy: The Definitive Guide, Tableau, . : Data Management Plan: The Definitive Guide, Tableau, . : Data Management Plan: The Definitive Guide, Tableau, .

: Data Strategy: The Definitive Guide, Tableau, . : Guide to Business Data Analytics, IIBA, 2020, p. 39. : Introduction to Business Data Analytics: An Organizational View, IIBA, 2019, p. 14. : Data Strategy: The Definitive Guide, Tableau, . : Data Roadmap: The Definitive Guide, Tableau, . : Business Strategy: The Definitive Guide, Tableau, . : Data Management Plan: The Definitive Guide, Tableau, .

NEW QUESTION 145

- (Topic 2)

A marketing department has established an analytics team. The analytics practice is stand- alone and analysts have limited insights into corporate strategy. Which is an expected result for analytics practices operating at the business unit level?

- A. Analytics work will be driven by the organization's business plan
- B. Insights derived from data analysis will be used to guide strategic decisions
- C. The analytics team may conduct analysis that is of minimal value to the organization
- D. The organization will use analytics as a means to obtain a competitive advantage

Answer: C

Explanation:

According to the IIBA® Guide to Business Data Analytics, analytics practices operating at the business unit level are characterized by a lack of alignment with the organization's strategic objectives, a limited scope of analysis, and a siloed approach to data and insights¹. This can result in analytics work that is not relevant, timely, or impactful for the organization as a whole, and that may not address the most critical business problems or opportunities. Therefore, the analytics team may conduct analysis that is of minimal value to the organization, or even detrimental if it leads to suboptimal decisions or actions.

References:1: IIBA® Guide to Business Data Analytics, Chapter 2: Business Data Analytics in Context, page 14-15

NEW QUESTION 146

- (Topic 2)

An analyst is performing regression analysis and reviewing the results. They would like to rescale the variables in the model to more clearly reflect the relationship between the regression coefficients. Which technique could be used to rescale the variables?

- A. Dimension Reduction
- B. Mean Centering
- C. Normalization
- D. Clustering

Answer: C

Explanation:

Normalization is a technique that rescales the values of the variables in a data set to a common range, such as [0,1] or [-1,1]. Normalization can help reduce the effect of outliers, improve the performance of some algorithms, and make the interpretation of the regression coefficients easier and more consistent.

Normalization can be done using different methods, such as min-max scaling, z-score scaling, or unit vector scaling. References: Guide to Business Data Analytics, page 41; Introduction to Business Data Analytics: A Practitioner View, page 12.

NEW QUESTION 150

- (Topic 2)

A company wants to run a monthly promotion on batteries that cost 15 cents each and sells for 50 cents. At this price, they typically sell 1000 batteries and generate a profit of 35 cents per battery for a total profit of \$350. The analytics team was asked to test two price points - 20% off (i.e. a sale price of 40 cents) and 40% off (i.e., a sale price of 30 cents). The survey data completed by 10000 participants was analyzed and showed that a 20% savings would result in sales of 1200 batteries and the 40% savings would result in 1800 batteries being sold. The team's initial recommendation was to recommend the 40% discount. Now that they are validating their recommendations, they decide to:

- A. Question why management would only want them to test two price points
- B. Change their recommendation realizing they have been victims of linear bias
- C. Redo the survey looking for a larger sample size
- D. Use their original recommendation given that the volume of sales is much higher

Answer: B

Explanation:

Linear bias is a type of cognitive bias that assumes a linear relationship between two variables, when in fact the relationship may be more complex or nonlinear. In this case, the analytics team assumed that the higher the discount, the higher the sales and profit, without considering other factors that may affect customer behavior, such as price elasticity, perceived quality, or competition. By changing their recommendation, the team can avoid making a suboptimal decision that may result in lower profit or customer satisfaction.

References: 10 Cognitive Biases in Business Analytics and How to Avoid Them, page 5; [Business Data Analytics: A Decision-Making Paradigm], page 9.

NEW QUESTION 151

- (Topic 2)

A lab is conducting a study on protein interactions. They have used the data to create a graph visualization. In graph visualization, what would an edge represent?

- A. A single datapoint
- B. A link between two datapoints
- C. A collection of datapoints and links
- D. A dedicated algorithm that calculates the node positions

Answer: B

Explanation:

A graph visualization is a type of visualization that shows the relationships among data points by using nodes (or vertices) to represent the data points and edges (or links) to represent the connections between them¹. A graph visualization can help reveal patterns, clusters, outliers, or hierarchies in the data². In a graph visualization, an edge represents a link between two data points, indicating that they have some kind of association, interaction, similarity, or dependency³. For example, in a study on protein interactions, an edge could represent a physical or functional interaction between two proteins, such as binding, signaling, or regulation⁴.

A single data point, a collection of data points and links, and a dedicated algorithm that calculates the node positions are not correct definitions of an edge in a graph visualization. A single data point is represented by a node, not an edge, in a graph visualization. A collection of data points and links is the whole graph, not an edge, in a graph visualization.

A dedicated algorithm that calculates the node positions is a method of graph layout, not an edge, in a graph visualization. A graph layout is the way the nodes and edges are arranged in a graph visualization, which can affect the readability, aesthetics, and interpretation of the graph.

References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 692: Data Visualization:

The Definitive Guide, Tableau, 3: Graph Visualization: The Definitive Guide, Tableau, 4: Protein Interaction Networks, Nature, . : Graph Visualization: The Definitive Guide, Tableau, . : Guide to Business Data Analytics, IIBA, 2020, p. 69. : Data Visualization: The Definitive Guide, Tableau, . : Graph Visualization: The Definitive Guide, Tableau, . : Protein Interaction Networks, Nature, . : Graph Visualization: The Definitive Guide, Tableau, .

NEW QUESTION 153

- (Topic 2)

A large retail chain has asked their analytics team to complete a study on their customers' purchasing patterns. The analyst assigned to the study has decided to draw further insight by grouping customers based on their purchasing habits. This clustering approach is an example of:

- A. Untrained learning

- B. Trained learning
- C. Unsupervised learning
- D. Supervised learning

Answer: C

Explanation:

Unsupervised learning is a category of data analysis techniques that does not require labeled data or predefined outcomes. Unsupervised learning aims to discover patterns, structures, or relationships in the data without any guidance or supervision. Clustering is a common example of unsupervised learning, where the data is grouped into clusters based on some similarity or distance measure. Clustering can help reveal customer segments, market trends, or product preferences, among other insights. References: Guide to Business Data Analytics, page 39; Introduction to Business Data Analytics: A Practitioner View, page 10.

NEW QUESTION 154

- (Topic 2)

A consumer products company is interested in finding ways to innovate utilizing business analytics. The team is reviewing a database of customer complaints. Interested in knowing how the organization currently interacts with its customers, the analyst proposes the use of which technique?

- A. Document analysis
- B. Journey map
- C. Current state assessment
- D. Interface analysis

Answer: B

Explanation:

A journey map is a visual representation of the interactions and experiences of a customer or stakeholder with an organization, product, or service over time. A journey map can help identify pain points, gaps, opportunities, and emotions along the customer journey. A journey map can also help understand the current state of the customer experience and how it can be improved or innovated using business analytics. References: Guide to Business Data Analytics, page 55; Introduction to Business Data Analytics: An Organizational View, page 18.

NEW QUESTION 159

- (Topic 2)

A movie production company wants to use analytics to decide which customers would choose to watch or not watch a particular movie after seeing a promotional teaser. The business analysis professional suggests they could make that prediction by identifying characteristics of the new movie and determining if the customer has watched other movies with similar characteristics. This is an example of using the following technique:

- A. Logistic regression
- B. Ouster analysis
- C. Integer programming
- D. Analysis of variance

Answer: A

Explanation:

Logistic regression is a technique that can be used to model the probability of a binary outcome, such as choosing to watch or not watch a movie, based on one or more predictor variables, such as the characteristics of the movie and the customer's viewing history. Logistic regression can help the business analysis professional to identify the factors that influence the customer's decision and to estimate the likelihood of each customer's preference. Logistic regression can also be used to test hypotheses and to evaluate the performance of the predictive model. References: [Guide to Business Data Analytics], page 55; [Business Data Analytics: A Practical Guide], page 93; [Introduction to Business Data Analytics: A Practitioner View], page 14.

NEW QUESTION 163

- (Topic 2)

A brainstorming session is conducted to identify the research questions to be explored within an analytics project. During the brainstorming activity which of the following should happen?

- A. The number of questions generated should be limited to contain scope
- B. Participants should make sure the questions are unique and realistic
- C. Participants should add questions as they come to mind without restriction on time limit
- D. Participants should avoid critiquing suggested questions raised by the group

Answer: D

Explanation:

According to the Guide to Business Data Analytics, brainstorming is a technique used to generate a large number of ideas or questions in a short period of time. The purpose of brainstorming is to encourage creativity and divergent thinking, not to evaluate or judge the ideas or questions. Therefore, participants should avoid critiquing suggested questions raised by the group, as this could inhibit the flow of ideas and discourage participation. The other options are not consistent with the principles of brainstorming, as they could limit the quantity or quality of the questions generated. References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 32.

NEW QUESTION 165

- (Topic 2)

A grocery store chain has requested help in determining how customer preferences are changing with regards to home delivery. An analytics team has completed researching the number of online orders received requesting home delivery versus in-store pickup. The business analyst has selected a model to enable a quick comparison between curbside pick-up, in-store pickup, and home delivery for the last 3 years. Which model has the business analyst chosen?

- A. Pie chart
- B. Funnel chart
- C. Scatter plot
- D. Bar chart

Answer: D

Explanation:

A bar chart is a graphical representation of data that uses rectangular bars of different heights or lengths to show the values of one or more variables¹. A bar chart is suitable for comparing the number of online orders received requesting different types of delivery options for the last 3 years, as it can show the frequency or proportion of each category across time. A bar chart can also help identify trends, patterns, or outliers in the data².

A pie chart is a circular chart that shows the relative sizes of data points in a whole by using different-sized and colored slices³. A pie chart is not suitable for comparing the number of online orders received requesting different types of delivery options for the last 3 years, as it can only show the distribution of one variable at a time, and it does not show the changes over time. A pie chart can also be misleading or confusing if there are too many categories or if the slices are too similar in size⁴.

A funnel chart is a type of chart that shows the stages of a process and the amount of data that passes through each stage⁵. A funnel chart is not suitable for comparing the number of online orders received requesting different types of delivery options for the last 3 years, as it does not show the categories of delivery options, but rather the progression of customers through a sales or marketing funnel. A funnel chart can help visualize the conversion rates, drop-off rates, or bottlenecks in a process⁶.

A scatter plot is a type of chart that shows the relationship between two numerical variables by using dots to represent the values of each pair of data points. A scatter plot is not suitable for comparing the number of online orders received requesting different types of delivery options for the last 3 years, as it does not show the categories of delivery options, but rather the correlation or association between two continuous variables. A scatter plot can help identify the direction, strength, and shape of the relationship, as well as any outliers or clusters in the data.

References:1: Guide to Business Data Analytics, IIBA, 2020, p. 672: Data Visualization: The Definitive Guide, Tableau, 3: Guide to Business Data Analytics, IIBA, 2020, p. 674: Data Visualization: The Definitive Guide, Tableau, 5: Guide to Business Data Analytics, IIBA, 2020, p. 686: Data Visualization: The Definitive Guide, Tableau, . : Guide to Business Data Analytics, IIBA, 2020, p. 68. : Data Visualization: The Definitive Guide, Tableau, .

NEW QUESTION 168

- (Topic 2)

A large bank has recently revamped their website, adding additional features such as financial investment opportunities, spending activity, and supporting reports. Which question will add value when evaluating how the website is being used?

- A. What is the customer satisfaction rating across the branches?
- B. What are the top keywords used in searches made within the website?
- C. What is the customer retention rate since the website launch?
- D. How many articles were published since the website launch?

Answer: C

Explanation:

Customer retention rate is a measure of how many customers continue to use a product or service over a given period of time. It is an important indicator of customer loyalty, satisfaction, and value. Customer retention rate can help the bank evaluate how the website is being used by comparing the number of customers who visited the website before and after the launch of the new features. A high customer retention rate would suggest that the new features are attractive, useful, and engaging for the customers, while a low customer retention rate would indicate that the new features are not meeting the customers' needs or expectations. Customer retention rate can also help the bank identify the segments of customers who are more or less likely to use the website, and tailor their marketing and communication strategies accordingly. References:

? Certification in Business Data Analytics (IIBA® - CBDA), IIBA, accessed on January 20, 2024.

? Business Data Analytics Certification - CBDA Competencies | IIBA®, IIBA, accessed on January 20, 2024.

? Guide to Business Data Analytics, IIBA, 2020, p. 23-24.

? What is Customer Retention Rate? | HubSpot, HubSpot, accessed on January 20, 2024.

NEW QUESTION 171

- (Topic 2)

An analyst calculates the average, median, and mode values for a dataset. What type of analytics is the analyst performing?

- A. Predictive
- B. Diagnostic
- C. Prescriptive
- D. Descriptive

Answer: D

Explanation:

Descriptive analytics is the type of analytics that summarizes and visualizes data to provide an overview of what has happened or is happening. Descriptive analytics uses techniques such as statistics, charts, graphs, and dashboards to display data in an understandable and meaningful way. Descriptive analytics can help analysts explore data, identify patterns, and communicate insights. Calculating the average, median, and mode values for a dataset is an example of descriptive analytics, as it provides a measure of central tendency for the data distribution. References:

? Certification in Business Data Analytics (IIBA® - CBDA), IIBA, accessed on January 20, 2024.

? Business Data Analytics Certification - CBDA Competencies | IIBA®, IIBA, accessed on January 20, 2024.

? Guide to Business Data Analytics, IIBA, 2020, p. 15.

? The 4 Types Of Analytics Explained (With Examples), Analytics for Decisions, accessed on January 20, 2024.

NEW QUESTION 173

- (Topic 2)

A fifty-year-old brick and mortar business is interested in determining the potential for selling their current products online. The sales director has asked the analytics team to predict future sales for their most popular product. A simple question is formed "Would you buy this product online?" The sales director would like to survey students from local colleges and universities within a 50km radius. As a result, the team will conclude:

- A. The sample size being considered may be too large to work with
- B. The research question will be easily answered with currently available data
- C. Focusing on a 50km radius will allow the team to complete the analysis quickly
- D. The survey will establish a poor study population

Answer: D

Explanation:

According to the Guide to Business Data Analytics, a study population is the subset of the population that meets the eligibility criteria for the research question. A study population should be representative of the population of interest and relevant to the business problem or opportunity. In this situation, the survey will establish a poor study population because the students from local colleges and universities within a 50km radius may not reflect the characteristics, preferences, and behaviours of the potential online customers for the fifty-year-old brick and mortar business. The students may have different demographics, income levels, shopping habits, and needs than the target market for the business. Therefore, the survey results may not be generalizable or applicable to the population of interest and may not provide valid and reliable insights for predicting future sales.

References: Guide to Business Data Analytics, page 48-49; CBDA Exam Blueprint, page 7; Population vs. Sample | Definitions, Differences & Examples - Scribbr

NEW QUESTION 174

- (Topic 2)

A consumer products company gained popularity with increased growth and brand recognition with one of its products. Although they have a loyal customer base and past year's performance results have shown steady growth, the Senior Leadership team wants to keep product leadership as their primary strategic priority. What would be their primary goal?

- A. Focus on providing value to customers by offering innovative and leading edge products
- B. Focus on their other products/product lines so that they gain momentum in popularity as well
- C. Maintain operational efficiencies so that their products can continue to be competitively priced
- D. Ensure that their top product continues to gain market share and maintain high standards

Answer: A

Explanation:

According to the IIBA's Introduction to Business Data Analytics: An Organizational View, product leadership is one of the three generic strategies that an organization can pursue to achieve competitive advantage in its market. Product leadership means that the organization focuses on providing value to customers by offering innovative and leading edge products that are superior in quality, design, functionality, or features than those of the competitors¹. Product leadership requires the organization to invest in research and development, to foster a culture of creativity and experimentation, to embrace change and risk, and to leverage data and analytics to generate new ideas, test hypotheses, and measure outcomes². Therefore, if the Senior Leadership team wants to keep product leadership as their primary strategic priority, their primary goal would be to focus on providing value to customers by offering innovative and leading edge products.

References: ¹ Introduction to Business Data Analytics: An Organizational View, IIBA, 2019, p. 102: Introduction to Business Data Analytics: An Organizational View, IIBA, 2019, p. 11.

NEW QUESTION 175

- (Topic 2)

When reviewing the results of their analysis, the team is determining if the data supports their hypothesis and can be presented to decision makers. They are reviewing measures of variation, sample size and statistical significance. They realize that the p-value of 0.02 is lower than the initial target. This clearly indicates the team can:

- A. Accept the null hypothesis and accept the alternative
- B. Accept the null hypothesis and reject the alternative
- C. Reject the null hypothesis in favor of the alternative
- D. Reject the null hypothesis and reject the alternative

Answer: C

Explanation:

According to the Guide to Business Data Analytics, a p-value is the probability of obtaining a test statistic at least as extreme as the one observed, assuming that the null hypothesis is true. A p-value is used to make conclusions in hypothesis testing by comparing it to a significance level, which is the maximum probability of making a type I error (rejecting the null hypothesis when it is true). If the p-value is less than or equal to the significance level, then there is strong evidence against the null hypothesis and it is rejected in favor of the alternative hypothesis. If the p-value is greater than the significance level, then there is weak evidence against the null hypothesis and it is not rejected. In this situation, the team realizes that the p-value of 0.02 is lower than the initial target, which means that the probability of observing such a result under the null hypothesis is very low. This clearly indicates that the team can reject the null hypothesis in favor of the alternative hypothesis, as there is sufficient evidence to support their hypothesis.

References: Guide to Business Data Analytics, page 57-58; CBDA Exam Blueprint, page 7; Understanding P-values | Definition and Examples - Scribbr

NEW QUESTION 177

- (Topic 2)

A fashion retailer is developing a new line of luxury handbags and would like to evaluate their target market and pricing. After an extensive evaluation based on product features, their target market, and pricing of competitor products, the analytics team has come up with a pricing proposal. On presenting the results, the management team is of the opinion that additional analysis was required before making a decision. What type of additional analysis will help the management team make a decision on pricing?

- A. How diverse are the competitors- product portfolios?
- B. How can we broaden the target market?
- C. How can costs be reduced to improve the profit margin?
- D. What is the breakeven point before profits are generated?

Answer: D

Explanation:

According to the Introduction to Business Data Analytics: A Practitioner View, the breakeven point is the point at which the total revenue equals the total cost of a product or service. The breakeven point indicates the minimum sales volume or price required to cover the fixed and variable costs and to start making a profit. The breakeven point can help the management team make a decision on pricing by showing them how sensitive the profitability is to the price changes and how much margin of safety they have. The breakeven point can also help the management team evaluate the feasibility and risk of the pricing proposal and compare it with alternative scenarios.

References: Introduction to Business Data Analytics: A Practitioner View, page 18; CBDA Exam Blueprint, page 7; [Break-Even Point (BEP) Definition - Investopedia]

NEW QUESTION 182

- (Topic 2)

A merger has been completed between two telecommunication companies and the analytic practices from both organizations are being joined. The newly formed analytics department will create a task force of data experts to combine the data from both companies into a structure usable for future analytics initiatives. Which of the following activities would provide a high level understanding about any potential data issues that might be encountered when merging sources?

- A. Data conversion
- B. Data cleansing
- C. Data migration
- D. Data profiling

Answer: D

Explanation:

According to the Guide to Business Data Analytics, data profiling is a technique that analyzes the structure, content, and quality of data sources. Data profiling can help identify data issues such as missing values, outliers, inconsistencies, duplicates, and errors. Data profiling can also provide information about the data types, formats, ranges, distributions, and relationships of data elements. Data profiling can help prepare data for data conversion, data cleansing, and data migration by providing a high level understanding of the current state of data and the potential challenges and risks involved in transforming and integrating data from different sources.

References: Guide to Business Data Analytics, page 53; CBDA Exam Blueprint, page 7; Data Profiling vs Data Cleansing - Data Ladder

NEW QUESTION 183

- (Topic 2)

What type of data model describes the highest level of relationship between entities and represents how a business perceives its information?

- A. Conceptual
- B. Entity Relationship
- C. Logical
- D. Physical

Answer: A

Explanation:

According to the Guide to Business Data Analytics, a conceptual data model is a type of data model that describes the highest level of relationship between entities and represents how a business perceives its information. A conceptual data model is independent of any specific technology or implementation details. It focuses on the key concepts and their attributes, as well as the business rules and constraints that govern them. A conceptual data model can help communicate the business requirements and scope of the data analysis project to various stakeholders.

References: Guide to Business Data Analytics, page 53; CBDA Exam Blueprint, page 7; Data Model Types: An Explanation with Examples

NEW QUESTION 186

- (Topic 2)

An analyst supporting the Marketing department for a specialty retailer has been asked to look through past sales data to help guide product decisions. The business sponsor for this initiative would first like to know 'What is the most profitable product line?'. What type of analytics is the analyst going to perform to address this question?

- A. Predictive
- B. Diagnostic
- C. Descriptive
- D. Prescriptive

Answer: C

Explanation:

According to the Guide to Business Data Analytics, descriptive analytics is a type of analytics that summarizes and presents data in a meaningful way. Descriptive analytics uses techniques such as statistics, charts, tables, and dashboards to provide an overview of what has happened or is happening in the data. Descriptive analytics can help answer questions such as who, what, when, where, and how. In this situation, the analyst has been asked to look through past sales data to help guide product decisions. The business sponsor for this initiative would first like to know 'What is the most profitable product line?'. This is a descriptive analytics question, as it involves summarizing and presenting the past sales data by product line and calculating the profit margin for each product line.

References: Guide to Business Data Analytics, page 49; CBDA Exam Blueprint, page 7; [Introduction to Business Data Analytics: A Practitioner View], page 14.

NEW QUESTION 189

- (Topic 2)

To ensure their recommendation can be acted upon, the business analysis professional on the analytics team helps the team complete financial analysis to support their recommendation. As part of the financial analysis that's completed, the cost-benefit analysis shows positive net benefits starting in the 2nd year. The team feels this is sufficient to proceed with their strong endorsement of the recommendation. The business analysis professional:

- A. Agrees since all the necessary analysis work is complete
- B. Disagrees since the risk of generating that net benefit is too high
- C. Agrees recognizing that positive benefits are occurring quickly
- D. Disagrees stating that the cumulative net benefits need to be reviewed

Answer: D

Explanation:

According to the Guide to Business Data Analytics, a cost-benefit analysis is a technique that compares the costs and benefits of a project or decision over a period of time. The net benefit is the difference between the total benefits and the total costs. A positive net benefit indicates that the benefits outweigh the costs. However, a positive net benefit in one year does not necessarily mean that the project or decision is financially viable. The business analysis professional should also consider the cumulative net benefit, which is the sum of the net benefits over the entire time horizon. The cumulative net benefit reflects the overall value of the project or decision, taking into account the time value of money and the opportunity cost of capital. A project or decision is only financially feasible if the cumulative net benefit is positive at the end of the time horizon. Therefore, the business analysis professional should disagree with the team and suggest that they review the cumulative net benefit before endorsing the recommendation.

References: Guide to Business Data Analytics, page 55-56; CBDA Exam Blueprint, page 7; [Introduction to Business Data Analytics: A Practitioner View], page 19.

NEW QUESTION 192

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