

Managerial Report

Use the numerical methods of descriptive statistics presented in this chapter to learn how these variables contribute to the success of a motion picture. Include the following in your report:

1. Descriptive statistics for each of the four variables along with a discussion of what the descriptive statistics tell us about the motion picture industry.
2. What motion pictures, if any, should be considered high-performance outliers? Explain.
3. Descriptive statistics showing the relationship between total gross sales and each of the other variables. Discuss.

Case Problem 3 Business Schools of Asia-Pacific



The pursuit of a higher education degree in business is now international. A survey shows that more and more Asians choose the master of business administration (MBA) degree route to corporate success. As a result, the number of applicants for MBA courses at Asia-Pacific schools continues to increase.

Across the region, thousands of Asians show an increasing willingness to temporarily shelve their careers and spend two years in pursuit of a theoretical business qualification. Courses in these schools are notoriously tough and include economics, banking, marketing, behavioral sciences, labor relations, decision making, strategic thinking, business law, and more. The data set in Table 3.11 shows some of the characteristics of the leading Asia-Pacific business schools.

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Use the methods of descriptive statistics to summarize the data in Table 3.11. Discuss your findings.

1. Include a summary for each variable in the data set. Make comments and interpretations based on maximums and minimums, as well as the appropriate means and proportions. What new insights do these descriptive statistics provide concerning Asia-Pacific business schools?
2. Summarize the data to compare the following:
 - a. Any difference between local and foreign tuition costs.
 - b. Any difference between mean starting salaries for schools requiring and not requiring work experience.
 - c. Any difference between starting salaries for schools requiring and not requiring English tests.
3. Do starting salaries correspond to level of tuition?

TABLE 2.20 PERFORMANCE DATA FOR 10 MOTION PICTURES

Motion Picture	Opening Gross Sales (\$millions)	Total Gross Sales (\$millions)	Number of Theaters	Weeks in Release
<i>Harry Potter and the Deathly Hallows Part 2</i>	169.19	381.01	4375	19
<i>Transformers: Dark of the Moon</i>	97.85	352.39	4088	15
<i>The Twilight Saga: Breaking Dawn Part 1</i>	138.12	281.29	4066	14
<i>The Hangover Part II</i>	85.95	254.46	3675	16
<i>Pirates of the Caribbean: On Stranger Tides</i>	90.15	241.07	4164	19
<i>Fast Five</i>	86.20	209.84	3793	15
<i>Mission: Impossible— Ghost Protocol</i>	12.79	208.55	3555	13
<i>Cars 2</i>	66.14	191.45	4115	25
<i>Sherlock Holmes: A Game of Shadows</i>	39.64	186.59	3703	13
<i>Thor</i>	65.72	181.03	3963	16

the motion picture was in release are common variables used to measure the success of a motion picture. Data collected for the top 100 motion pictures produced in 2011 are contained in the file named 2011Movies (Box Office Mojo, March 17, 2012). Table 2.20 shows the data for the first 10 motion pictures in this file.

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Use the tabular and graphical methods of descriptive statistics to learn how these variables contribute to the success of a motion picture. Include the following in your report.

1. Tabular and graphical summaries for each of the four variables along with a discussion of what each summary tells us about the motion picture industry.
2. A scatter diagram to explore the relationship between Total Gross Sales and Opening Weekend Gross Sales. Discuss.
3. A scatter diagram to explore the relationship between Total Gross Sales and Number of Theaters. Discuss.
4. A scatter diagram to explore the relationship between Total Gross Sales and Number of Weeks in Release. Discuss.

Problem 3 Queen City

Cincinnati, Ohio, also known as the Queen City, has a population of approximately 298,000 and is the third largest city in the state of Ohio. The Cincinnati metropolitan area has a population of about 2.2 million. The city is governed by a mayor and a nine-member city council. The city manager, who is responsible for the day-to-day operation of the city, reports to the mayor and city council. The city manager recently created the Office of Performance and Data Analytics with the goal of improving the efficiency of city operations.