Question #75691, Economics Microeconomics

Question: The sales data for the Lodestar Sport Apparel company for the last 12 years are as follow

Year Sales
2001 $400,000
2002 $440,000
2003 $480,000
2004 $518,000
2005 $554,000
2006 $587,000
2007 $617,000
2008 $654,000
2009 $700,000
2010 $756,000
2011 $824,000
2012 $906,000

a) What is the 2001 – 2012 compound growth rate?

b) Using the result obtained in part a, what is your 2013 projection?

c) If you were to make your own projection, what would you forecast?

Solution:

a) $CG = \left(\frac{V_o}{V_f}\right)^{\left(\frac{1}{n}\right)} - 1$

where n is number of years, Vf is final value and Vo is original value

$CG = \left(\frac{906000}{400000}\right)^{\left(\frac{1}{11}\right)} - 1 \approx 0.077157 \approx 7.7157\%$

b) $906000 + (906000 * 7.7157\%) = \$975904$

c) I would project Lodestar Sport Apparel maintain steady growth with 7-8% of CAGR, which means sales up to $1,4-1,6 million within 5 years.

Answer provided by