1. What factors influence the adoption and diffusion of innovations?

The factors that influence the adoption and diffusion of innovations are the type of advantage the innovation provides. The next is the compatibility of the innovation. For instance, if there is a new software, it is compatible with the commonly used operating systems its adoption is likely to be fast. Further, if the innovation can be observed and tried out its adoption and diffusion becomes faster. In addition, if the innovation is simple it is accepted quickly. The adoption of the innovation to individual needs is an important factor that influences adoption and diffusion of innovation. From a different perspective the relative advantage provided by the innovation leads to quick adoption and diffusion. One of the most critical factors is the cost of diffusion. This influences the rate of diffusion.

In case of diffusion if the physical distance among people is less, there is strong opinion leaders in favor of the innovation, and the similarity among members of a culture leads to speedy diffusion of innovation. There are some characteristics of the population that enhance adoption and diffusion. These characteristics are that the individuals are willing to take risk, focused on technology, willing to take risk and are communicate frequently. Even those people that are technology oriented tend to adopt innovations easily.

2. What methods of forecasting technology and markets are available, and what are their relative advantages and disadvantages?

One of the methods of obtaining forecasting technology and markets is the Delphi technique. This provides input for ideas and problem-solving. Compared to other forecasting techniques involving a group, its relative advantages are that it is conducive to independent thinking, enables sharing of information, leads to reliable forecast results, is inexpensive and allows participants to be anonymous. The relative disadvantages are that it is time consuming, requires ability to write, and needs time and participant commitment( Wallace. T, & Stahl. R2002).

Another method of forecasting technology and markets is the econometric models. These combine economic theory, model building, and statistical methods. The advantages of this method of forecasting technology and markets are that it is based on cause-affect relationships, can forecast the extent of the change, allows adjustment of the model, and provides alternative future scenarios, on the other hand the disadvantages are it may less accurate in case of short term forecasts, depends on its assumptions, and can be expensive(Porter. A 1991).

Another method that can be used for forecasting technology and markets is morphological analysis. This method enables structuring and investigating the set of relationship. Its advantages are that ambiguous parameter definitions are revealed and incomplete ranges of conditions are exposed. In an unbiased way reveals all the relationships. The disadvantages are that it requires experienced facilitation, and developing parameters is very difficult (Wallace. T & Stahl. R2002).

References:

Porter. A (1991) Forecasting and management of technology, Wiley-IEEE,
Rogers, E.M. (1995). Diffusion of innovations (4th ed.). New York: The Free Press.
Stockdill, S.H. and Morehouse, D.L. (1992). Critical factors in successful adoption of technology: A checklist of TDC findings. Educational Technology, 32, 1, 57-58.
Wallace. T, & Stahl. R( 2002) Sales forecasting: a new approach : why and how to emphasize teamwork, not formulas, forecast less, not more, focus on process improvement, not forecast accuracy, T. F. Wallace & CO,