As language and technology are two major focuses of reform in education, teachers of English language have to cope with the challenge of technological and pedagogical shifts occurring in the teaching profession. The purpose of the present study is to investigate the factors affecting the adoption of Information and Communication Technology (ICT) among English teachers in an English as a Secondary Language (ESL) context by means of a quantitative study. First, using a validated and reliable questionnaire consolidated and inspired by other researches done in the field, the researcher elicited the point of view of 217 English teachers about the mentioned factors. The data collected from the questionnaire was entered into SPSS software for further analysis. One sample t-test, multiple regression, independent sample t-test and ANOVA were used for analysis and testing of the hypotheses. The results demonstrated that three factors proposed by the researcher were confirmed as active on the adoption of ICTs among teachers. The priority of the factors based on their views was: perceived usefulness, ICT knowledge to use and support language teaching and learning, respectively. Furthermore, the researcher found that there was no difference between the means in relation to the male subjects and female subjects’ attitude towards the factors affecting ICT adoption. Also, the training courses in ICT taken by the respondents did not affect their total attitude towards the factors affecting ICT adoption. Finally, based on the findings of the study and other reviewed guidelines, the researcher proposed some useful suggestions for English teachers and English Language Teaching (ELT) policy makers in the context to implement ICT tools in English classes.