**Cover Letter**

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1. The novelty and importance of the findings detailed in the paper

In many existing papers, there is no clear boundary between human capital and technological innovation. These two notions are sometimes regarded as the same thing without being distinguished in form or content. The questions, whether human capital and technological innovation are independent conceptually or practically, what are the differences and connections between them, and what is the definition and scope of human capital, need to be further studied, which is the starting point and innovative contributions of this paper.

1. Informed Consent

Written consent was obtained from all participants prior to the study.

1. Contributorship

The author Wu Kangping pointed out the confusion between human capital and technological innovation of existing papers. Then the author Wu Mengtao classified the confusion into three categories by reviewing literature.

The author Wu Kangping defined the concept and scope of human capital, and made comparisons between human capital and technological innovation in three aspects. Then the author Wu Mengtao calculated and measured human capital of 10 countries after eliminating physical capital, labor force and technological innovation.