CLAIMS

What is claimed is:

1. A digital object unique identifier (DOI) display method, comprising:

determining, when a client application starts in a current running process, that a startup mode is cold start; and

in response to determining that the startup mode is the cold start, displaying a start page comprising a payment DOI to be scanned by a scanner to make a payment by scanning the payment DOI,

wherein, before determining that the startup mode is the cold start, the method further comprises: pre-generating, by the client application in a previous running process, the start page comprising the payment DOI,

and wherein displaying the start page comprising the payment DOI comprises: displaying the pre-generated start page comprising the payment DOI.

2. The method according to claim 1, wherein the payment DOI comprises verification identifier information, and the verification identifier information is used by a server to determine a verification method for transaction information generated by the scanner after scanning the payment DOI.

3. The method according to claim 1, wherein the displaying a start page containing a payment DOI comprises:

generating the payment DOI;

obtaining an initial start page of the client application that does not comprise the payment DOI; and

generating and displaying, based on the payment DOI and the initial start page that does not comprise the payment DOI, the start page comprising the payment DOI.

4. The method according to claim 3, wherein the generating the payment DOI comprises:

generating the payment DOI based on local random factors.

5. The method according to claim 4, wherein the generating the payment DOI

based on local random factors comprises:

obtaining a user identifier that is previously used to log in to the client application; and

generating the payment DOI based on the local random factors and the user identifier that is previously used to log in to the client application.

6. The method according to claim 1, wherein after the client application has started, the method further comprises:

determining that a prompt message indicating that the payment has failed is received; and

in response, displaying a service page comprising the payment DOI, wherein the service page is not the start page.

7. The method according to any one of claims 1 to 6, wherein the payment DOI is a two-dimensional code.

8. A transaction information verification method, comprising:

receiving, by a server, transaction information generated by a scanner after scanning a payment digital object unique identifier (DOI) to make a payment, wherein the payment DOI comprises verification identifier information displayed on a start page of a client application;

determining a corresponding verification method for the transaction information based on the verification identifier information in the payment DOI;

performing verification for the transaction information using the corresponding verification method; and

determining, based on a verification result, whether to complete the payment.

9. The method according to claim 8, wherein determining the corresponding verification method for the transaction information based on the verification identifier information in the payment DOI comprises:

performing login-free verification or login verification on the transaction information based on the verification identifier information.

10. The method according to claim 9, wherein the transaction information

comprises a user identifier of the transaction information, and the performing login-free verification or login verification on the transaction information comprises:

obtaining at least one of historical login behavior data or historical login environment data of the transaction information based on the user identifier of the transaction information; and

performing login-free verification on the transaction information based on at least one of the historical login behavior data or the historical login environment data of the transaction information.

11. A digital object unique identifier (DOI) display equipment comprising a determining module, a display module, and a first generation module, the DOI display equipment configured to perform the method according to any one of claims 1 to 7.

12. A transaction information verification equipment comprising a receiving module, a determining module, and a verification module, the transaction information verification equipment configured to perform the method according to any of one of claims 8 to 10.

13. A digital object unique identifier (DOI) display device, wherein the device comprises:

a memory, configured to store a DOI display program; and

a processor, configured to invoke and execute the DOI display program in the memory to perform the method according to any one of claims 1 to 7.

14. A transaction information verification device, comprising:

a memory, configured to store a transaction information verification program; and

a processor, configured to invoke and execute the transaction information verification program in the memory to perform the method according to any one of claims 8 to 10.