CLAIMS

1. A method of facilitating a payment transaction with a payment card of a customer, the method comprising:

capturing, by a fingerprint input module of a payment card capable of sensing fingerprints, a fingerprint tap input provided by a customer, the fingerprint tap input including: (i) a fingerprint tap pattern indicative of a customer transaction amount associated with a purchase by the customer at a merchant terminal and (ii) a fingerprint of the customer;

transmitting, by a processor of the payment card to the merchant terminal, via a communication module of the payment card, the fingerprint tap input obtained from the fingerprint input module of the payment card, based on the payment card being swiped at or inserted into the merchant terminal;

receiving, by a server system associated with a payment network, a payment transaction request for the purchase initiated at the merchant terminal, the payment transaction request including:

a merchant transaction amount associated with the purchase entered at the merchant terminal; and

the fingerprint tap input provided by the customer on the fingerprint input module of the payment card;

facilitating, by the server system, verification of the fingerprint obtained from the fingerprint tap input of the customer by comparing the received fingerprint of the fingerprint tap input with a stored fingerprint of the customer in a database associated with the server system;

upon successful verification, determining the customer transaction amount from the fingerprint tap pattern of the fingerprint tap input and determining whether the merchant transaction amount conforms to the customer transaction amount; and

facilitating a payment transaction for the purchase associated with the payment transaction request with an issuer server, in response to the merchant transaction amount conforming to the customer transaction amount.

2. The method as claimed in claim 1, further comprising facilitating registration

of fingerprints, a national identity number of the customer and a PIN of the payment card of the customer through an application associated with the server system.

3. The method as claimed in claim 2, wherein facilitating registration further comprises:

storing the registered fingerprints, the national identity number and the PIN in the database associated with the server system, the registered fingerprints including the stored fingerprint; and

linking the registered fingerprints and the national identity number with stored fingerprints and a stored national identity number, respectively, present in a central biometric server.

4. The method as claimed in claim 2, wherein facilitating registration of fingerprints further comprises:

assigning user defined fingerprint tap patterns to digits and numbers; and

storing the user defined fingerprint tap patterns in the server system.

5. The method as claimed in claim 1, wherein facilitating verification of the received fingerprint further comprises:

identifying the fingerprint obtained from the fingerprint tap input as a registered fingerprint;

extracting an associated national identity number from a database associated with the server system upon identification of the received fingerprint; and

facilitating comparison of the fingerprint obtained from the fingerprint tap input and the associated national identity number with the stored fingerprint and stored associated national identity number, respectively.

6. The method as claimed in claim 5, wherein facilitating comparison further comprises:

sending the fingerprint obtained from the fingerprint tap input and the associated national identity number to a central biometric server for comparison; and

receiving verification information of the fingerprint obtained from the fingerprint tap input and the associated national identity number from the central biometric server.

7. The method as claimed in claim 1, wherein determining whether the merchant transaction amount conforms to the customer transaction amount further comprises determining if the merchant transaction amount is less than or equal to the customer transaction amount, wherein the customer transaction amount represents a pre-defined maximum debit limit to be debited from an issuer account of the customer for a current transaction.

8. The method as claimed in claim 1, wherein facilitating the payment transaction further comprises sending the payment transaction request to the issuer server for approval of the payment transaction.

9. A server system for facilitating a payment transaction with a payment card of a customer, the server system comprising:

a memory comprising stored instructions; and

at least one processor in communication with the memory, the at least one processor configured to execute the stored instructions to cause the server system to:

receive a payment transaction request initiated at a merchant terminal, the payment transaction request including:

a merchant transaction amount associated with a purchase entered at the merchant terminal; and

a fingerprint tap input provided by the customer on a fingerprint input module of a payment card, the fingerprint input module capable of sensing fingerprints of the customer, the fingerprint tap input including (i) a fingerprint tap pattern indicative of a customer transaction amount associated with the purchase and (ii) a fingerprint of the customer;

facilitate verification of the fingerprint of the customer included in the fingerprint tap input based on a comparison of said fingerprint with a stored fingerprint of the customer;

upon successful verification, determine the customer transaction amount from the fingerprint tap pattern of the fingerprint tap input and determine whether the merchant transaction amount conforms to the customer transaction amount; and

facilitate a payment transaction associated with the payment transaction request with an issuer server in response to the merchant transaction amount conforming to the customer transaction amount.

10. The server system as claimed in claim 9, wherein the stored instructions, when executed by the at least one processor, further cause the server system to facilitate an application to enable registration of fingerprints, a national identity number and a PIN of the payment card of the customer at the server system.

11. The server system as claimed in claim 10, wherein the stored instructions, when executed by the at least one processor in connection with facilitating registration of the fingerprints, the national identity number, and the PIN of the payment card, cause the server system to:

store the registered fingerprints, the national identity number of the customer and the PIN of the payment card of the customer in a database associated with the server system; and

link the registered fingerprints and the national identity number with stored fingerprints and a stored national identity number, respectively, present in a central biometric server.

12. The server system as claimed in claim 10, wherein the stored instructions, when executed by the at least one processor in connection with facilitating registration of the fingerprints, the national identity number, and the PIN of the payment card, cause the server system to:

define fingerprint tap patterns and assign the fingerprint tap patterns to digits and numbers; and

store the fingerprint tap patterns in a database associated with the server system.

13. The server system as claimed in claim 9, wherein the stored instructions, when executed by the at least one processor in connection with facilitating verification of the received fingerprint, cause the server system to:

identify the fingerprint obtained from the fingerprint tap input as a registered fingerprint;

extract an associated national identity number from a database associated with the server system upon identification of the received fingerprint; and

facilitate comparison of the fingerprint obtained from the fingerprint tap input and the associated national identity number with the stored fingerprint and stored associated national identity number, respectively.

14. The server system as claimed in claim 13, wherein the stored instructions, when executed by the at least one processor in connection with facilitating the comparison, cause the server system to:

send the fingerprint obtained from the fingerprint tap input and the associated national identity number to a central biometric server for comparison; and

receive verification information of the fingerprint obtained from the fingerprint tap input and the associated national identity number from the central biometric server based on the comparison.

15. The server system as claimed in claim 9, wherein the stored instructions, when executed by the at least one processor in connection with determining whether the merchant transaction amount conforms to the customer transaction amount, cause the server system to determine if the merchant transaction amount is less than or equal to the customer transaction amount, wherein the customer transaction amount represents a pre-defined maximum debit limit to be debited from an issuer account of the customer for a current transaction.

16. The server system as claimed in claim 9, wherein the stored instructions, when executed by the at least one processor in connection with facilitating the payment transaction, cause the server system to send the payment transaction request to the issuer server for approval of the payment transaction.

17. A payment card, comprising:

a fingerprint input module configured to provision a fingerprint tap input, the fingerprint tap input indicative of a customer transaction amount associated with a purchase;

a storage system configured to store instructions and the fingerprint tap input; and

a processing system configured to execute the instructions to:

store the fingerprint tap input in the storage system; and

transfer the fingerprint tap input to a merchant terminal when the payment card is in communication with the merchant terminal.

18. The payment card of claim 17, wherein the payment card further comprises a power supply to power the fingerprint input module.

19. The payment card of claim 17, wherein the payment card further comprises:

a wireless communication module configured to transfer information from the storage system to the merchant terminal; and

a counter configured to count fingerprint taps from the fingerprint tap input provided by a customer.