

Analysis of Dipa Karmakar's Performance on Vault Event in Rio 2016 Olympics

Dr. Kalpana Debnath¹, Dr. Gurdial Singh Bawa²

Dipa Karmakar scripted the history by becoming the first Indian gymnast to qualify for the Rio 2016 Olympics. She was the only woman gymnast from India to participate in Olympic Games. As per the FIG Technical Regulations (2016), International Olympic Committee (IOC) permits only 98 female gymnasts to participate in Olympic Games in Women Artistic Gymnastics. Out of the 98 female Artistic gymnasts, 60 came from the 12 qualified teams (each team comprising of 5 gymnasts) and 38 seats were filled by the Individual gymnasts.

Dipa Karmakar qualified for the Rio Olympics during the Rio Test Event held in Rio-de-Janeiro (BRA), from 16 to 18 April 2016, by obtaining the 19th place, out of the individual gymnasts. She also won Gold Medal on Vault Event in the 2016 Rio Test Event, by securing 14.833 points (gymnasticsresults.com-2016).

Vault is one of the four apparatuses in Women Artistic Gymnastics. There are four different types of competitions in Women Artistic Gymnastics in Olympic Games programme. i.e. Qualifying Competition, Team Competition, Individual All-around Final and Individual Event Finals. Each of the 98 gymnasts has to participate in Qualifying Competition (also known as Competition No. I) for qualifying for the Individual All Around Final (also known as Competition No. II) and Individual Event Finals (also known as Competition No. III). Then, there is Team Competition (also known as Competition No. IV).

To qualify for the Event Finals on Vault, a gymnast has to perform two different Vaults, having different second flying phase, as per the FIG WAG Code (2012-2016), in Qualifying Competition; and the average of the two scores becomes the Final Score. There were only 19 women gymnasts who performed two Vaults in Qualifying Competition, to get place into the Vault Finals, during the 2016 Rio Olympics Games. The list of the 8 qualified gymnasts and marks obtained by them, in Qualifying Competition, are presented in the following Table.

1. Chief Gymnastics Coach SAI NS NIS, Patiala 147001

2. Chief National Gymnastics Coach SAI, I.G. SC, New Delhi

Table-1: 'D Scores, 'E Scores' and Total marks obtained by each of the best eight Gymnasts, on Vault Event, in Qualifying Competition of 2016 Rio Olympics

Rank	Name	NOC	Scores	1st Vault	2nd Vault	Total of Both	Average
					Vaults	Score	
1	BILES Simone	USA	'D' Score	6.300	6.400	12.700	16.050
			'E' Score	9.700	9.700	19.400	
			Total	16.000	16.100		
2	HONG Un-Jong	PRK	'D' Score	6.300	6.400	12.700	15.683
			'E' Score	9.466	9.200	18.666	
			Total	15.766	15.600		
3	STEINGUDER Giulia	SUI	'D' Score	6.200	5.800	12.000	15.266
			'E' Score	9.200	9.400	18.600	
			Total	16.000	16.100		
4	PASEKA Maria	RUS	'D' Score	6.400	6.300	12.700	15.049
			'E' Score	8.333	9.066	17.399	
			Total	14.733	15.366		
5	CHUSOVITINA Oksana	UZB	'D' Score	6.200	6.000	12.200	14.999
			'E' Score	8.966	8.833	17.799	
			Total	15.166	14.833		
6	OLSEN Shallon	CAN	'D' Score	6.300	5.900	12.200	14.590
			'E' Score	9.000	8.700	17.700	
			Total	16.00	16.100		
7	WANG Yan	CHN	'D' Score	6.000	6.200	12.200	14.949
			'E' Score	8.933	8.766	17.799	
			Total	16.000	16.100		
8	KARMAKR Dipa	IND	'D' Score	7.000	6.000	13.000	14.850
			'E' Score	8.100	8.600	16.700	
			Total	15.100	14.600		

'D' Score = Difficulty Scores 'E' Score = Executive Scores

The evaluation of performance on Vault Event is based upon two factors i.e. the 'Difficulty Score', which is the content value of the Vault and 'Execution Score' which is awarded for the execution factor. The 'Execution scores' are awarded out of a maximum of 10.00 points. The content value of the Vault is open value. (FIG, WAG Code of Points, 2013)

From the above Table, it is evident that Dipa Kamakar had the highest

'Difficulty Score' when compared with the 'Difficulty scores' of all other seven finalists. The 'Difficulty Score' of her first Vault (Produnova) was 7.00 and second Vault (Tsukahara with 7200 turn) is 6.00 points. Thus, the total 'Difficulty Score' of both the Vaults comes to 13.00 points which is 0.30 greater than the 'Difficulty Score' of 1st ranking gymnast, 0.30 greater than the 'Difficulty Score' of 2nd ranking gymnast and 1.00 points greater

than the 'Difficulty Score' 3rd ranking gymnast, respectively. The third ranking gymnast, Steingruber Giulia from SUI, who also won the Bronze medal on Vault event, having 1.00 points less 'Difficulty Score' than Dipa Karmakar.

The Table 1 also reveals that Dipa Karmakar has the lowest 'Execution Score' when compared with the 'Execution Score' when compared with the 'Execution Score' of all the other 7 finalists on Vault. The first ranking gymnast, Simone Biles from USA had 19.400 points 'Execution Score'; whereas, Dipa Karmakar has 16.700 'Execution Score' in Qualifying Competition which is 2.700 lesser. 'Execution Score' of Dipa Karmakar was 1.966, 1.900, .699, 1.299, 1.000, and 1.299 lower than the 'Execution Score' of the 2nd, 3rd, 4th, 5th, 6th and 7th ranking gymnasts, respectively. Thus, it is evident from the above results that Dipa Karmakar has to improve her 'Execution Score', which are

quite lower when compared with the other seven finalists of the Vault Event.

Dipa Karmakar had achieved lower 'Execution Score' in her both the Vaults in Qualifying Competition. She had achieved 8.100 points in her first Vault (Produnova) and 8.600 in her second Vault (Tsukahara with 7200 turn) in execution, making total of 16.700 points. The second lowest Execution scores, in the 1st Vault are 8.333 points achieved by Paseka Maria from Russia; the second lowest scores of 8.700, in the 2nd Vault, are of Olsen Shallon from Canada.

The Individual Event Final Competition on Vault in 2016 Rio Olympics was held on 14th August, 2016. The evaluation of the performance in the Individual Event Finals starts fresh, without considering the marks obtained by the gymnasts in Qualifying Competition. There were lot of upsets in Individual Event Final Competition, on Vault, which are evident from the results given in Table 2.

Table-2: Difference between the Marks obtained by the Vault Finalists in Qualifying Competition and Final Competition in Women Artistic Gymnastics

Rank	Name	NOC	Marks Obtained in Qualifying Competition	Rank in Qualifying Competition	Marks Obtained in Final Competition	Rank in Final Competition	Difference
1	BILES Simone	USA	16.050	1	15.966	1	-0.084
2	HONG Un-Jong	PRK	15.683	2	14.900	6	-0.783
3	STEINGUDER Giulia	SUI	15.266	3	15.216	3	-0.050
4	PASEKA Maria	RUS	15.049	4	14.253	2	+0.204
5	CHUSOVITINA Oksana	UZB	14.999	5	14.833	7	-0.166
6	OLSEN Shallon	CAN	14.590	6	14.816	8	-0.134
7	WANG Yan	CHN	14.949	7	14.999	5	+0.050
8	KARMAKAR Dipa	IND	14.850	8	15.066	4	+0.216

It is evident from the above Table that the eight finalists, on the Vault, did not give the same performance which they gave during the qualifying competition. Simone Biles though retained the first rank, but there was decline of 0.084 points in her performance scores in Finals (15.966) when compared with the scores she secured in qualifying competition (16.050). Similarly, Hong Un Jong who

was expecting Silver medal, had a big fall and could obtain only 14.900 points which were 0.783 lesser than her performance scores (15.836) of the qualifying competition. The above Table also depicts that out of the eight finalists, five gymnasts achieved lesser marks when compared with the marks they achieved in the qualifying competition.

Table-3: 'D Scores, 'E Scores' and Total marks obtained by each Finalist on Vault Event in Individual Event Finals in 2016 Rio Olympics

Rank	Name	NOC	Scores	1st Vault	2nd Vault Vaults	Total of Both Score	Average
1	BILES Simone	USA	'D' Score	6.300	6.400	12.700	15.966
			'E' Score	9.600	9.633	19.233	
			Total	15.900	16.033		
2	PASEKA Maria	PRK	'D' Score	6.400	6.300	12.700	15.253
			'E' Score	8.866	8.911	17.807	
			Total	15.266	15.241		
3	STEINGUDER Giulia	SUI	'D' Score	6.200	5.800	12.000	15.216
			'E' Score	9.333	9.100	18.433	
			Total	15.533	14.900		
4	KARMAKAR Dipa	RUS	'D' Score	6.000	7.000	12.700	15.049
			'E' Score	8.866	8.266	17.132	
			Total	15.100	14.600		
5	WANG Yan	UZB	'D' Score	6.000	6.200	12.200	14.999
			'E' Score	8.866	8.933	17.799	
			Total	15.100	15.133		
6	HONG Un-Jong	CAN	'D' Score	6.400	6.300	12.700	14.900
			'E' Score	9.000	8.100	17.100	
			Total	15.400	14.400		
7	CHUSOVITINA Oksana	CHN	'D' Score	7.000	6.000	12.200	14.833
			'E' Score	7.933	8.733	17.799	
			Total	14.933	14.733		
8	OLSEN Shallon	IND	'D' Score	6.300	5.900	12.200	14.816
			'E' Score	9.000	8.700	17.700	
			Total	16.000	14.600		

'D' Score = Difficulty Scores 'E' Score = Executive Scores

There were only 3 gymnasts, out of the eight finalists, who improved their performance and achieved higher marks in Final Competition when compared with the marks they obtained in Qualifying Competition. Dipa Karmakar obtained 0.216 points more in Final Competition (15.066) when compared with the scores she secured in the Qualifying Competition (14.850). This was the best performance score of her career on any event in international competition.

She obtained the highest improved scores (+0.216) in Final Competition when compared with the improved scores of Wang Yan of China and Paseka Mana of Russia, who got +0.050 and 0.204 improved scores, respectively, in Final Competition.

From Table 3, it is evident that the 'Difficulty Scores' of all the finalists were the same as that of difficulty scores of Qualifying Competition with the exception of Chusovitina Oxana, who improved her 'Difficult scores' from 12.200 in Qualifying Competition (Table 1) to 13.00 points in the Final Competition. She also performed Produnova Vault, having Value of 7.00 points, in the Final Competition.

Dipa Karmakar was the only gymnast, out of the eight finalists, who improved her 'Execution Scores' in both the Vault in Final Competition which is evident from the results given in Table 1 and Table 3. She had improvement of 0.166 points in her Produnova Vault, in the Final Competition, when compared with the scores she obtained in the Qualifying Competition. She obtained 8.100 points in Execution in Produnova Vault (Table 1) in Qualifying Competition and 8.266 points in Execution in Produnova Vault (Table 3) in Final Competition. Similarly, she had improvement of 0.266 points in her Tsukahara 720° turn Vault, in the Final Competition, when compared with the scores she obtained in the Qualifying Competition. She obtained 8.600 points in Execution in Tsukahara 720° turn Vault (Table 1) in Qualifying Competition and 8.866 points in Execution in Tsukahara 720° turn Vault (Table 3) in Final Competition. This is a positive sign in her improvement which indicates that she has still lots of scope to improve her 'Execution Scores' further, in both the Vaults.

REFERENCES

- Federation International de Gymnastique (2013).** 2013-2016 Code of Points Women's Artistic Gymnastics, Lausanne.
- Federation International de Gymnastique (2016).** Technical Regulations Version 2016, Lausanne.
- FIG-Gymnastics.com (2016).** We are Gymnastics. Rio 2016 WAG Final List of qualifiers.docx. <http://www.gymnasticsresults.com/>
- Rio Second Olympic Qualification Test Events (2016).** Artistic Gymnastics, Women's Vault, Final Results. Rio Olympic Arena, Aquece, Rio De Janeiro